

# The BRITISH JOURNAL of TUBERCULOSIS

T. N. KELYNACK, M.D.

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# THE BRITISH JOURNAL

OF

## TUBERCULOSIS

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### ORIGINAL ARTICLES.

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#### TUBERCULOSIS IN CANADA.

BY SIR HUMPHRY ROLLESTON, BART.,

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THE Editor has suggested that a brief note on a visit to the meetings of the Canadian Tuberculosis Association and the American National Tuberculosis Association on June 26-30, 1933, might perhaps be of interest.

The Canadian Tuberculosis Association, of which Dr. W. J. Dobbie, of the Toronto Tuberculosis Hospital, Weston, is now the President, and Dr. R. E. Wodehouse, of Ottawa, the Executive Secretary, is, in spite of the severe financial depression, more than maintaining its activities. With 8,292 beds, almost all for pulmonary tuberculosis, there are now more beds and a better equipment of diagnostic clinics than ever before. The mortality from tuberculosis in 1931 was lower than in 1921, except in British Columbia, in which there were special racial factors concerned. Some interesting points were brought out about tuberculosis in the Indians. Last year the mortality from pulmonary tuberculosis in Canada, including treaty Indians, was 6,218; but Indians under fifteen years of age, though 3 per cent. only of the population, contributed 44 per cent. of the tuberculosis mortality in this age group. The Indians in Manitoba and in the Brant Reserve in Ontario showed a lower mortality than those in the provinces of Saskatchewan and Alberta; this is probably explained by a higher condition of tubercularization due to a longer and numerically more intimate association with the early white tuberculosis-infecting population in Manitoba than in Saskatchewan and Alberta. R. G. Ferguson, of Fort San, Saskatchewan, in a paper read before the American National Tuberculosis Association, which held its 29th annual meeting at Toronto, June 26-30—the first time

this Association has met in Canada—discussed the Indian tuberculosis problem in somewhat further detail. In 1931, among the Canadian Indians, there were 672 deaths from tuberculosis—a death-rate of 547 per 100,000—or seven and a half times that of the total population of Canada. In the province of Saskatchewan in 1931 the Indian tuberculosis death rate was 517 per 100,000, or fourteen times that for the total population of Saskatchewan. Annual examinations for the last six years of Indian children in two schools in the Qu'Appelle Indian Research Area has shown that the maximum morbidity occurs between ten and fourteen years of age, and ten times that of the white population in the same age group. As the result of anti-tuberculosis measures in the Qu'Appelle Indian Health unit there has been a fall of the tuberculosis death-rate to approximately one-half that of the Indian tuberculosis death-rate for Saskatchewan. The most important step in the prevention of tuberculosis among the Indians is, therefore, the detection and segregation of tuberculous children when at boarding-schools; if this is done comparatively few should be attacked later in life.

The *relation of silicosis and tuberculosis* was considered in a number of papers read before the meetings of the American National Tuberculosis Association at Toronto. A. R. Riddell pointed out that simple silicosis—namely, uncomplicated by tuberculosis—seldom causes conscious disability of sufficient severity to make the subject seek medical advice, and that in the main the clinical signs are those common to other forms of pulmonary fibrosis; the breath sounds, however, are of diminished intensity and the inspiratory phase shortened and higher pitched. The diagnosis depends first on the history and then on the X-ray appearances, which were also described by Pancoast and Pendergrass, of Philadelphia, and by Leroy Gardner, of Saranac Lake; the latter pointed out that in an early stage this was shown by a slight diffused haze beneath the pleura in the mid-portions of the lungs. According to Lyle Cummins there is some danger in too confidently applying the data of gold-miner's phthisis on the Rand to similar problems elsewhere; South Wales coal-miners show a silicosis identical with that of metalliferous miners, but without the liability to fatal tuberculosis. Among other new points in connection with pulmonary silicosis he drew attention to the presence of finely divided sericite both in the lung residues of silicotic colliers and in the rocks of the South Wales coal measures. Leroy Gardner estimated that at least 75 per cent. of silicotic subjects die from tuberculosis, the advent of which markedly changes the clinical picture. Riddell insisted that the complicating tuberculosis is infective, and may spread tuberculosis among the general population, a danger for which an erroneous belief to the contrary may be responsible.

*The Tuberculosis Preventorium* at Toronto, supported by the Imperial Order of the Daughters of the Empire (I.O.D.E.), was established in 1913, and has been much enlarged since. It aims at prevention by means of fresh air, good food, and properly regulated exercise and rest. The infants of tuberculous mothers are received as soon after birth as possible, and children who have been exposed in their homes to tuberculous infection are also admitted. Cases of pulmonary tuberculosis and of discharging tuberculous sinuses are ineligible. The Preventorium works in close association with the chest clinic of the Toronto Hospital for Sick Children, the Department of Public Health, the Province of Ontario Travelling Diagnostic Clinic, other bodies and medical practitioners. On admission the children are segregated for ten days in a separate building provided with cubicles, and parents and visitors are allowed to see the children through glass partitions; these measures have been most successful in obviating the introduction of acute infections. Special attention is paid to the presence and removal of dental and tonsillar infections, and before operative treatment the children are X-rayed to determine whether or not there is evidence of the status thymico-lymphaticus; if there is positive evidence the thymus region is irradiated, for whatever may be the true significance of this condition, it is considered to be "better to be safe than sorry." In fact, radiological examination of children for thymic enlargement is a routine in the Toronto hospitals. About 70 out of the 116 inmates of the Preventorium are of an age to receive education, which is given under the supervision of the Board of Education of Toronto. The widespread pasteurization of milk in Canada has so diminished the incidence of bovine infection in children that nearly all surgical tuberculosis is due to the human strain of the tubercle bacillus.

The treatment of the poor tuberculous patients of Toronto is carried out in a hospital and sanatorium at Weston, a few miles from the city, and is on thoroughly modern lines. The operating theatre is finely equipped and presents an up-to-date feature—the galleries for spectators are shut off from the theatre by plate-glass; by a microphone apparatus, attached to the surgeon's white coat, his remarks are conveyed to the spectators in the galleries.

Inquiry elicited the information that there is at Livingstone, on the Hudson, a village settlement run on the lines of Papworth. About seven years ago Miss Potts left a million and a half dollars, and the Potts Memorial, under the direction of Dr. R. Patterson, has industries of printing and farming.

A pleasant incident during the meeting of the American National Tuberculosis Association was the presentation of the Trudeau medal to Dr. Lawrason Brown of the Adirondacks.

## THE CLOSURE OF CAVITIES IN PULMONARY TUBERCULOSIS.

By B. HUDSON,

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ALTHOUGH some persons live for many years with a cavity or cavities in the lung, and are sometimes able to lead a useful and happy life in this condition, nevertheless the presence of a cavity is a potential danger to the patient, and in most cases some active treatment should be undertaken to effect, or in any case to further its ultimate closure.

Instances may occur, however, when interference may be unjustifiable. For example, the age of the patient must be taken into consideration. Although we have seen excellent results following the production of an artificial pneumothorax and other interventions on cases of sixty years old or thereabouts, still it is no doubt better for a patient to be on the right side of fifty if active measures are to be undertaken. There are also instances when a cavity is very localized, thick-walled, well encapsuled, dry, and causing no symptoms. It is hardly warrantable to intervene in a case of this type, especially if the patient's general health is good. We must always remember that an operation is never justifiable if it subjects the patient to a greater risk than that created by the condition for which it is performed.

It cannot be said that a patient with a cavity in his lungs is really free from potential dangers. The principal risks of this may be enumerated as follows:

1. *Hæmoptysis*.—This is always a very distressing, and sometimes a very dangerous occurrence. Even if the life of the patient is not directly endangered, there is the serious risk of spread of the tuberculous disease, either into the other lung or into other parts of the affected lung.

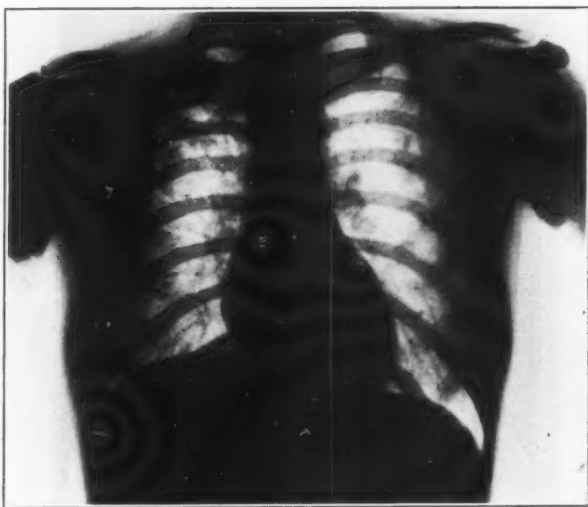
2. *Spread of Infection*.—Quite apart from hæmorrhage, a patient with a cavity practically always has a greater or less amount of sputum containing tubercle bacilli, and thus there is always an increased risk of the disease being spread directly in the same or the other lung.

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The patient is also subject to great inconvenience and may be a source of danger to his fellows.

3. *Perforation*.—This generally is followed by pyo-pneumothorax, and this is frequently a fatal incident.

Before dealing with the various means now at our disposal for the treatment of tuberculous cavitation of the lungs, we would like to draw attention to the fact that a cavity may completely heal without any other treatment than that associated with a carefully regulated life, with an adequate amount of rest and exercise, and an abundance of fresh air and good food—in other words treatment on "sanatorium



CASE I, RADIOGRAPH I.—SHOWING LARGE CAVITY IN RIGHT UPPER LOBE.

Patient was a woman, age 24. The radiograph was taken before artificial pneumothorax was produced.

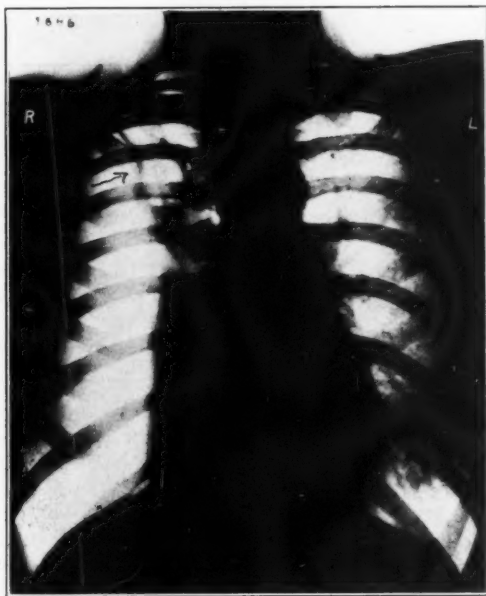
lines." It is not sufficiently realized how very important rest is in the treatment of the early case. It is the most important of all the factors comprised in the sanatorium routine, while over-exercise is always dangerous.

In general, if a cavity is going to heal spontaneously, it does so quickly, that is to say in two or three months, as was long ago pointed out by Dr. Turban.

One of us (B.H.) published a case and radiograms in the *Lancet* of February 18, 1933, which well illustrated the spontaneous closure of a cavity.

We may now enumerate the various active methods for dealing with cavities:

1. *The Production of Artificial Pneumothorax.*—In the absence of adhesions holding the cavity open, the walls come together, and in a favourable case all that can be seen when the lung is allowed to re-expand is a linear scar. In general, the treatment must be continued for a minimum of three years, although some authorities are of opinion that two are enough. This largely depends on the course of the case.



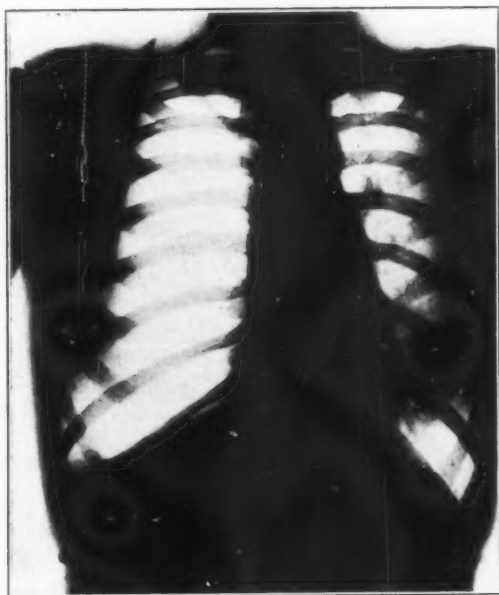
CASE I, RADIOGRAPH II.—AFTER PRODUCTION OF ARTIFICIAL PNEUMOTHORAX.

The cavity is held open by strong adhesions.

When it is considered that the lung has been collapsed sufficiently long, it can be allowed to re-expand to a limited extent, and it is then possible to ascertain by radiography whether or not the cavity is closed. It can then be decided whether or not it is necessary to continue the treatment. Care must be taken not to allow the lung to expand enough to come actually into contact with the chest wall before it is decided to discontinue the treatment, as if this occurs, the visceral and parietal layers of the pleura quickly become adherent, making it impossible ever to recollapse the lung. Some cases of artificial pneu-

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mothorax, especially following an effusion, gradually obliterate in spite of refills (obliterative pneumothorax). Here the pleura becomes greatly thickened, the ribs tending to fall together, and the mediastinum is often displaced towards the affected side. In these cases the areas of disease may be healed, and cavities may be closed in a shorter time than would have been necessary in the absence of the obliteration process. It is necessary here to make it clear that it is not right to wait for cavitation before inducing an artificial pneumothorax. In many cases this should be done, if possible, before cavitation actually



CASE I, RADIOGRAPH III.—LARGE CAVITY IN THE RIGHT UPPER LOBE.

Shows complete collapse of the cavity after cauterization of the adhesions.

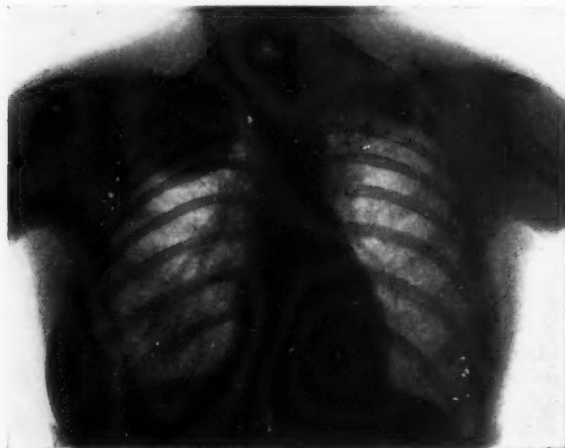
occurs, as pointed out recently by Laurence O'Shaughnessy (*Lancet*, February 25, 1933).

2. *Division of Adhesions*.—In some cases after a pneumothorax has been induced it is found that a cavity is being held open by adhesions between the lung and the thoracic wall. These may be divided by thoracoscopy, and the use of the combined electric cautery and diathermy current. The field of usefulness of this operation, which was introduced by Jacobæus of Stockholm, has been greatly widened by the adoption of a technique introduced by Maurer of Davos, by

which method the distal end of the adhesion is cut right out of the chest wall, thus guarding against perforation of the lung, if the adhesion contains lung tissue.

3. *Phrenicectomy (or Phrenic Avulsion).*—A cavity can sometimes be induced to heal by means of removal of a portion of the phrenic nerve, the diaphragm on the same side rising into the thorax and general contraction of the lung taking place with healing of the diseased areas. Even apical cavities are sometimes caused to heal by this means.

4. *Extra-Pleural Plombage.*—This operation, tried notably in Germany several years ago, fell into disrepute owing to perforation of the



CASE 2, RADIOGRAPH IV.—AFTER WAX PLOMBAGE.

Shows large cavity in right upper lobe closed by a paraffin wax plombage. Artificial pneumothorax in this case was impossible owing to adhesions, and thoracoplasty was not indicated, as the condition was a local one only.

lung following the operation in some cases. It is now being performed again with revised technique by Haeberlin of Davos and others in Switzerland and Germany, and is chiefly useful for apical cavities, which in this way can often be closed. A small length of rib is resected. It is best to do this, if possible, posteriorly,  $1\frac{1}{2}$  inches of the third rib being removed. Occasionally, however, if the cavity is an anterior one, this resection may have to be done from the front. The apex of the lung is then freed from the chest wall by the finger, this being the main part of the operation. Finally a small amount of sterile paraffin wax is inserted into the thoracic cavity to partially fill up the extra-pleural space so made, great care being taken to prevent any pressure of the wax on the lung. The previous untoward results

were due to too much wax being inserted, causing pressure on the lung, followed by perforation.

5. *Extra-Pleural Thoracoplasty*.—Finally, cavities are often closed by means of this operation. Portions of ten or eleven ribs are removed in one, two, or even three stages according to the condition of the patient, and the lung is caused to contract towards the mediastinum by the falling-in of the chest wall and retraction of the lung itself. This is chiefly useful for extensively affected cases, with marked fibrosis, whose cavities are too large to be treated by plumbage, and in which artificial pneumothorax is impracticable owing to the presence of massive adhesions. Partial plastic operations for closing cavities may be sufficiently adequate when the disease is more localized.

## A RETROSPECT OF TWENTY YEARS IN THE TUBERCULOSIS SERVICE.

By ARTHUR C. WATKIN,

M.R.C.S., L.R.C.P., D.P.H.,

Tuberculosis Officer, County of Shropshire.

THE National Anti-Tuberculosis scheme has now been in force for twenty years, and it may be of interest to glance back, note how the scheme has operated, and observe what changes have taken place in the method of attacking the problem. The diminution of mortality from tuberculosis which has been going on for many years is very satisfactory, but it is not the purpose of this paper to deal with the causes of that decline or to assess the share of the anti-tuberculosis scheme in bringing it about. Taking first of all the preventive side of the problem, it would seem that the principles laid down by the Departmental Committee in their report published in 1913 were sound.

Tuberculosis Dispensaries with their medical staff and health visitors were established throughout the country, and it is reasonable to believe that the supervision of homes and the guidance and instruction of patients thus afforded have been a real means of diminishing the risks of infection to others. To take some simple examples. In 1931 in Shropshire, 216 persons were notified as suffering from pulmonary tuberculosis: of these, thirty-eight shared beds with others on notification. At the end of the year, when an investigation was made, the number had been reduced to three; even three is too many, of course, but some cases are very difficult to deal with. Again, in a rural county such as Shropshire, the extensive use of open-air shelters is another

means of diminishing the risk of infection. There were 633 pulmonary cases on the tuberculosis register in 1932, and of these 150 lived in open-air shelters all the year round.

The provision of sanatorium beds throughout the country is probably now adequate, but it is doubtful if enough hospital accommodation has been provided for segregation of advanced cases. One recognizes that the chronic ambulant patient may be as much a source of infection as the patient with advanced disease, but, in the case of the latter, the source of infection can be removed from the home by the stroke of a pen, as it were, if the patient is removed to hospital. When special hospital accommodation is provided in a peaceful and pleasant situation, with a sympathetic nursing staff, it is not difficult to persuade a patient to enter and remain there until the end of his days. At present too many advanced cases have to be accommodated in public assistance institutions. However admirable these latter may be for other purposes, many tuberculous patients object to entering them or to staying in them for any length of time.

Some of the hopes of the Departmental Committee have been frustrated by the financial stringency following the Great War. Adequate housing and slum clearance, which might have been comparatively easy in the affluence of pre-war days, have been rendered impossible. A large extension of the Colony and Village Settlement system on the model of Papworth and Preston Hall has not been carried out for the same reason. In spite of financial depression and unemployment, however, it is probable that the standard of food supply of the masses owing to increased public assistance is not less than before the war. There has been a slow improvement in the purity of milk, but here again the need for economy and the depressed state of agriculture have retarded progress. The slowly increasing sale of tuberculin-tested grades of milk and the large-scale development of pasteurization must nevertheless have diminished to some extent the dangers of infection with the bovine bacillus. The adoption of the Grancher system of boarding out child contacts has been found impossible on any large scale for two reasons—first, the reluctance of parents to part with their children; and second, lack of funds. A modified scheme is in operation in Shropshire to deal with babies born of tuberculous mothers. In these cases it is arranged for the birth to take place in a nursing home. As soon as the baby is born the child is removed to the County Home for ailing babies and is kept there for twelve months. At the end of that period, if the mother is still alive, an attempt is made to find a home for the baby with relatives or elsewhere. If this fails, the baby has to be allowed to go home, but it is felt that something has been done to prevent gross infection of the infant in the earliest stage of its life. In the meantime, too, the

mother will have been impressed with the necessity for stringent precautions.

Regular examination of all contacts as recommended by the Departmental Committee has not been found possible. In the writer's experience, it has been comparatively easy to get contacts of school age to attend the dispensaries for periodical examination, but the number of adolescents and adults who can be persuaded to attend regularly is disappointingly few. Without entering here into the vexed question of latent pulmonary and mediastinal lesions in childhood, it must be accepted by all that it is in adolescent and adult life that pulmonary tuberculosis flares up into activity in the vast majority of cases. One may go further and say that while in middle and late life the tendency is to develop the more chronic forms of the disease, young adults are more prone to the fulminating type, and it seems to the writer that this is the age period which should most carefully be watched among contacts.

Sir Robert Philip has in recent years advocated the application of the Mantoux test to all child contacts, and when one is found giving a positive reaction, he pleads for special watching of that child for symptoms or signs of active tuberculosis. Myers of Minneapolis claims by improved X-ray technique to be able to recognize the primary focus in the lungs of children who have no symptoms of disease. He advocates testing all contacts by the Mantoux method and X-ray examination of all reactors. He is of opinion that, until we do this, the disease will continue its terrible destruction in adolescent and adult life.

If it does become possible to detect the primary focus in outwardly healthy children it will certainly be a step forward, but will it solve the problem? Have we at present any certain means of preventing that child from developing active disease in adult life? Certainly one or two years in a sanatorium could not be relied upon to do this. No, the detection of the primary focus is not likely to solve the problem. We are still ignorant of the cause of that latent focus flaring up into active disease in adult life. We must know that and many other things before the problem is solved.

Another development in recent years has been the BCG vaccine. It is too soon yet to pass a final verdict on Professor Calmette's work in this direction, but his claims have not been generally accepted in this country. Our hopes are, however, that an effective vaccine will be discovered.

Having dealt with the preventive side of the question, one may now turn to treatment and diagnosis. When tuberculosis officers were appointed by local health authorities about the year 1913, the mass of the medical profession showed no hostility, but there was a tendency

on the part of some non-panel practitioners to view any form of State interference with suspicion. One of the first duties of the new tuberculosis officer was therefore to establish good relations with the practitioners of his area. Those tuberculosis officers who served in the forces throughout the war returned at the end of hostilities to find a great change in this respect. In the throes of war the nation had rapidly accustomed itself to State interference in all sorts of things. There had also been a shortage of doctors, and the general practitioner had come to accept gladly the co-operation of the tuberculosis officer.

One difficulty in the early days was over-diagnosis of tuberculosis. Superintendents of sanatoria had emphasized the necessity for getting cases early, and the zeal of some practitioners overran their wisdom. They notified cases which they considered to be early tuberculosis, and the unfortunate tuberculosis officer had sometimes to undertake the responsibility of disagreeing with the diagnosis. In those days, when the art of X-ray examination of the lungs was undeveloped, a diagnosis of tuberculosis was a pretty safe one, for, barring a post-mortem, it was difficult to prove the diagnosis wrong; but the man who said a case was not tuberculous undertook a real responsibility. He was liable to be found wrong by the subsequent development of obvious signs and symptoms.

Doubtful cases, therefore, required several weeks of observation of symptoms, signs, temperatures, etc., and repeated examination of the sputum before active tuberculosis could be excluded. During recent years the great advances in X-ray technique have made diagnosis easier and quicker. There was a tendency, too, in the earlier days for children with chronic nasal catarrh and children with varying degrees of bronchiectasis to be notified as cases of tuberculosis, and a good many of these children up and down the country found their way into sanatoria. Following the war there came a vogue for diagnosing hilus tuberculosis in children by special methods of percussion, etc., but during recent years one has heard less of it.

In sanatoria in 1913 and 1914 a great deal of importance was attached to occupational therapy on the lines of Dr. Marcus Patterson's methods. Tuberculin was also a popular form of treatment for pulmonary tuberculosis.

We are now laying more stress upon rest than upon exercise, and not many physicians use tuberculin for lung tuberculosis. We are turning more and more towards surgical methods—artificial pneumothorax, phrenic evulsion, thoracoplasty, etc.—and it does seem that although many disappointments are met with, we have made a definite step forward.

Sanocrysin has been tried with an open mind in this country, and many workers claim a definite value for it.

A few years ago extravagant claims were made for the value of ultra-violet rays in the treatment of all sorts of diseases, tuberculosis included. A saner view is now taken. This form of treatment is certainly of great value for lupus and so-called scrofulous conditions of the skin, and some workers claim good results in the treatment of tuberculous adenitis without abscess formation. In the orthopaedic world we have witnessed a great extension of open-air hospital accommodation and after-care clinics for tuberculous bone disease. Exposure to open air and sunshine is recognized as a valuable adjunct in the treatment.

The lesson learnt from experience is that one should view every new form of treatment or method of diagnosis with an open mind and not be swept away by the enthusiasm of the moment. The verdict should be given after carefully weighing the evidence of one's own and others' experience.

## PULMONARY TUBERCULOSIS OF BOVINE ORIGIN: A CRITICAL SURVEY.

By W. MELROSE CUMMING.

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Yorkshire.

IT must be accepted that cases of pulmonary tuberculosis with the bovine type of the bacillus occurring in the sputum are not in this country, at least, the bacteriological curiosities that they were held to be ten years ago. Including the writer's unpublished material, 62 cases have now been demonstrated. All of these except 4 have been investigated during the past ten years.

The cases are reported from urban and rural districts as widely apart as Fifeshire, Ayrshire, Roxburghshire, Northumberland, Durham, Cumberland, Yorkshire, Lancashire, Cheshire, Wales, Cambridgeshire, Surrey and London. The proportion of cases of bovine origin to cases of human origin is so low (in no area does it exceed 4 per cent. of investigated cases) as to bring in the question of "inverse probability." It is therefore extremely doubtful whether the apparently rather higher incidence of the bovine type in Scotland and some parts of the north of England as compared with southern England is in reality significant. On the other hand, in selected series of the writer's (*e.g.* in cases of pulmonary tuberculosis complicating glandular tuberculosis and in cases of pulmonary tuberculosis occurring in those coming much in

contact with cattle) the higher incidence of the bovine type in the north as compared with the south is possibly of some significance.

#### **The Route and Source of Infection.**

It seems likely that infection may take place either by the alimentary route or by the respiratory route. That infection by the alimentary route occurs can be said to have been proved. The evidence that infection can take place by the respiratory route is less conclusive, chiefly through lack of opportunities for autopsies. In one instance in which an autopsy was obtained there was, however, no evidence of an alimentary route of infection. Further, in none of the reported cases of "bovine phthisis" in milkers, cow-hands, etc., is there any history of a previously occurring glandular lesion or any other clinical evidence that the primary lesion might have been alimentary. Broadly speaking, then, the risk of contracting "bovine phthisis" from a primarily alimentary lesion is the risk of the general population—*i.e.* from the consumption of tubercle bacillus-intected milk; whilst the risk of direct infection by inhalation is the risk of that section of the population whose work brings them much in contact with cattle—*i.e.*, from the inhalation of droplets coughed out by a beast with an open lung lesion or the inhalation of infective dust from the cattle's hides, etc. The point must be stressed, however, that whatever the route of infection the care of cattle must be classed as a dangerous occupation on account of the risk of contracting bovine tuberculosis in its most crippling and (if meningitis is excluded) its most fatal form, namely, pulmonary tuberculosis.

#### **The Type of the Disease.**

Clinically, radiologically, and at autopsy "bovine phthisis" is indistinguishable from pulmonary tuberculosis of human origin. Generally the disease is of the usual type, commencing in the apex of the lung and showing a definite tendency towards cavitation. In such cases there is usually copious sputum which is loaded with tubercle bacilli. Cases of the root-spread type, however, are not uncommon; in these there is no tendency for cavitation to occur, while sputum is scanty and frequently T.B. negative on microscopic examination. The latter type of lesion is commoner when the lung lesion has been preceded by a gross glandular lesion. The prognosis would appear to be rather better in the root-spread type of case than in the apical type of case, but the available evidence suggests very strongly that in "bovine phthisis" the prognosis is at least as bad as when the disease is of human origin.

#### **The Infectivity of the Cases.**

Cases of bovine phthisis have been known to be infective for long periods, in one instance for as long as eleven years. In these circum-

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stances it becomes increasingly surprising that there has not yet been demonstrated an instance of one human being infecting another with the bovine type of the bacillus. In several instances a family history has been elicited, but in only one instance has the causal organism been isolated from a close contact. In this instance the organism was of the human type. There is still, however, no reason for ignoring the possibility of human-to-human infection with the bovine type of the bacillus and the consequent establishment of bovine tuberculosis as a human disease, quite irrespective of such measures as may be taken against the disease in the bovine population. Similarly, although there is no evidence that men suffering from "bovine phthisis" have infected tubercle-free cattle, the possibility of the occurrence of this cannot be ignored. Several of the patients concerned have had as their usual occupation the care of cattle. It is impossible to conceive what damage they might have done had they obtained employment in a tubercle-free herd while still undiagnosed.

*Is pulmonary tuberculosis of bovine origin on the increase?* There is some suggestion that it is, but it will be necessary to follow up recent investigations in, say, ten or twenty years' time to prove it.

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## THE TUBERCULOSIS MOVEMENT IN THE UNITED STATES.\*

By KENDALL EMERSON,

M.D.,

Managing Director, National Tuberculosis Association, New York City.

AFTER three years of economic strain, with lengthening bread lines and increased millions required for relief, the tuberculosis death rate in the United States still continues to decline. The Metropolitan Life Insurance Company's latest available figures indicate that for their twenty million industrial policy holders, about one-seventh of the entire population of this country and Canada, the 1932 death rate for all forms of tuberculosis was 70 per 100,000 as contrasted with 91 in 1928.

During the nearly thirty years of its activity the National Tuberculosis Association has witnessed the mortality rate first cut in two, and now reduced to one-third of that prevailing in 1900. It is entirely fair to assume that the educational work carried on by the National Tuberculosis Association has played an important part in this striking public health drama. In the past twenty-five years hospital beds in the United States for the tuberculous have multiplied from ten to eighty thousand; where a quarter of a century ago there were but fifty clinics and case-finding agencies there are now more than three thousand; instead of a handful of public health nurses there are now over fifteen thousand; and health education, formerly of negligible significance, has grown to a matter of deep concern in the minds of educators extending from the primary school grades up through the universities. Each of these instruments for the control of tuberculosis has been energetically promoted by the National Tuberculosis Association and its affiliated organizations in all the States of the American Union, and to such activities belongs the credit for the striking reduction in tuberculosis mortality.

At the present time attention is being focused on a number of problems and procedures connected with the carrying forward of the fight to control tuberculosis.

1. *Childhood Tuberculosis.* — Country-wide interest has been stimulated in the detection of the so-called childhood type of tuberculosis, the initial infection revealed by a positive tuberculin reaction and X-ray investigation, and which may or may not show clinical evidence of disease. The object of this work is twofold; first, it brings to light the children who have been infected, some of whom may require

\* The Headquarters of the American National Tuberculosis Association are situated at 450, Seventh Avenue, New York City, U.S.A.

special preventive care; second, and more important, it puts us on the track of often undiscovered cases of active tuberculosis with whom such children have been in contact and from whom they have presumably become infected. Examination of some 500,000 children the country over shows an average of reactors between 20 and 30 per cent. The figures vary markedly between sparsely settled rural districts and crowded cities. X-ray examination of the chests of children reacting positively shows active tuberculosis in one or two cases out of a thousand, and evidence of considerable healed infection, Ghon tubercle, or calcified glands in 5 per cent. of the cases. It is interesting to observe that those children known to have been in contact with active cases of the disease show from two to four times greater incidence of infection than those without such history.

2. *Tuberculosis in Young Women.*—Tuberculosis has long been recognized as a peculiar menace to the health and lives of adolescent girls and young women between the ages of fifteen and twenty-five years. In this group the mortality is more than 50 per cent. higher than among their brothers of similar age. A recent study has been made of the causes leading up to the death from tuberculosis of 800 young women in America within these age limits. Careful analysis of case records appears to indicate that occupation, social status, styles in dress, or overindulgence in frivolous living have little bearing on the situation, and that the causes of the greater frequency of serious tuberculous disease among these young women are physiological and closely related to adolescence, early marriage, pregnancy, the strains of child bearing and home-making responsibilities.

3. *Hospitals for the Tuberculous.*—Despite drastic economies in governmental expenditures it is significant to record that during the years 1931 and 1932 hospital beds for the tuberculous increased by more than 2,000. These were provided by Federal, State, and municipal appropriations. In many communities, however, there are still long waiting lists of tuberculous patients awaiting institutional treatment, and the saturation point in publicly financed institutions has not as yet been reached. At the same time there is a noticeable shrinkage in the number of patients who can afford to enter the more expensive private sanatoria. The older type of cabin construction has been largely abandoned, and new hospitals are substantially constructed, built for permanency and economical administration, since at some future time they may be diverted from their present purpose of caring for those ill with tuberculosis.

4. *Racial Tuberculosis Problems.*—We have in the United States several racial groups of measurable importance among whom tuberculosis mortality is notably higher than among the general population. The negroes, constituting about 10 per cent. of the people, present the

major problem, but the death rate in the lesser groups of American Indians and Mexicans is also discouragingly high. It is probable that the mortality rate for the country as a whole in 1933 will prove to be about 64 per 100,000. The rate for negroes is still about 170, and in some crowded districts it is five or six times as great as that among the whites. Through a generous grant from one of the foundations the National Tuberculosis Association is engaged at the present time on a review of this threatening social situation, and it is hoped to inaugurate special measures for meeting it.

5. *Medical Research regarding Tuberculosis.*—For the past ten years the National Association has been developing a co-ordinated programme of research in the physiology and biochemistry of the tubercle bacillus. The unique feature of this project is the joint study of the problem in its many phases taking place in a number of the university and special laboratories in various parts of the country. Special investigations are assigned to those laboratories best equipped in resources and personnel to carry them forward. Through frequent conferences complete co-ordination is maintained. It is believed that no such concerted attack on a puzzling scientific problem has previously been organized among a group of laboratories directed by men skilled to attack each separate but related aspect of the study. The results of this work are being reported through the *American Review of Tuberculosis* and at the annual meetings of the National Tuberculosis Association. In the field of social research special studies have been published during the past year dealing with the health of negroes, tuberculosis among young women, and the after-care of the tuberculous.

6. *Organization and Finance in Tuberculosis Work.*—The National Tuberculosis Association, with offices in New York, has an affiliated tuberculosis association in each of the forty-eight States. These latter in turn have a varying number of local associations in the larger cities and counties. Each of the State associations and the larger locals have regularly retained executive secretaries, of training and experience, who direct the programme of work in their respective districts. Support for the organization comes almost wholly from the sale of Christmas seals. The response of a generous public has been extraordinary, and until the financial regression set in the seal sale showed an annual increase. Despite the lessening of contributions for all health and welfare agencies, the Association has thus far been able to preserve its affiliated State organizations, and the enterprise continues to function notwithstanding certain inevitable reductions in its scope. It is gratifying to record that institutions for the care of the sick have suffered comparatively slightly during this period of marked decrease in income from taxation. It is a reasonable assumption that

volunteer health societies like our own have been instrumental in educating public opinion to support appropriations for these indispensable public services.

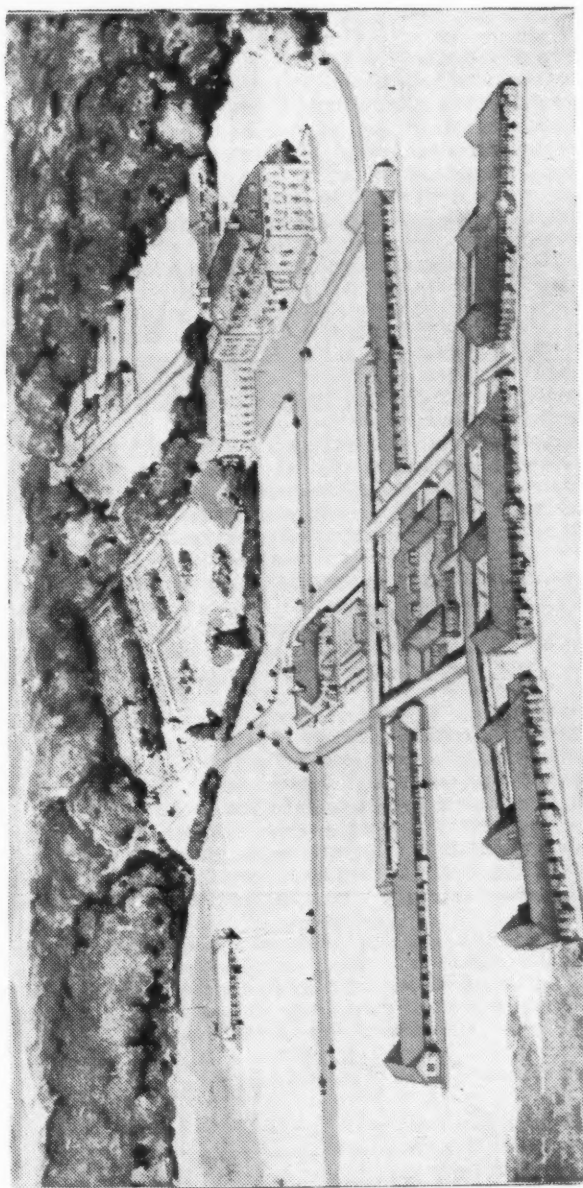
7. *Outlook for Tuberculosis Study and Service.*—There is scant cause to hope that we can avoid a grave aftermath of the present economic depression. The strain of worry resulting from continued unemployment, inadequate nutrition, overcrowded dwellings with their opportunities for contact infection, neglect of adequate medical attention, all give rise to fears that at any moment the incidence of tuberculosis may show an upward trend. That this has not already taken place may be attributed perhaps in large part to the fine development of the public health service during the past few years and to the result of intensive efforts at popular health education on the part of the voluntary health agencies. If the momentum thus gathered can carry us through our fears may not be justified. At the moment, however, it seems inevitable that we must look to a slowing up of the rate of decline in tuberculosis mortality, and indeed in one or two parts of the country this tendency is already alarmingly present. At no time in our history has it been so essential to continue to the fullest capacity which our resources will permit our promotion of preventive medicine and our organized effort toward tuberculosis control.

## ASSOCIATIONS AND INSTITUTIONS.

### WRIGHTINGTON TUBERCULOSIS HOSPITAL, LANCASHIRE.

ON June 16, 1933, the new Wrightington Hospital, built by the Lancashire County Council, was formally opened by Sir George Newman, K.C.B., the chief Medical Officer of the Ministry of Health. The hospital contains accommodation for 226 patients suffering from non-pulmonary tuberculosis. County Alderman Sir James Travis-Clegg, Chairman of the Lancashire County Council, presided, and was supported by Colonel C. J. Trimble, Chairman of the County Tuberculosis Committee; Mr. E. Boothman, Vice-Chairman of that Committee; Sir George Etherton, Clerk of the County Council; Dr. G. Lissant Cox, Central Tuberculosis Officer; Dr. E. H. Allon Pask, Medical Superintendent of the hospital; and Miss E. Moseley, Matron. Sir George Newman, in the course of a brilliant address, stated that the country was engaged today in the struggle with tuberculosis and was winning almost "hands down." Tuberculosis was the greatest constitutional disease which had its root in the social life, character, and conduct of the English people. So to engage in a struggle for the banishment of tuberculosis was to engage in a crusade which deserved all the devotion, wisdom and statecraft of which the country was capable. Leprosy, plague, smallpox and cholera were all diseases which had been banished from Britain, but which nevertheless still flourished in other parts of the world today. They were not banished from this country as natural phenomena, but were banished by the will and determination of the English people. It could not be a natural phenomenon that tuberculosis was going to disappear without a high and persistent endeavour. What had been done could be done again, and he was there to say that in Lancashire they were doing the job. He outlined briefly the progress made in treating tuberculosis, mentioning the contributions made by Hippocrates, Laennec, Koch, Röntgen, Lord Lister, Finsen, and lastly Sir Robert Jones. Sir George said the Wrightington Hospital, like no other temple of healing in England, was being built into a great national scheme for the prevention of tuberculosis. They had got the best example in all England of the combination of the means of prevention with the methods of healing. They had in Lancashire the best scheme for attacking tuberculosis in any county. The Lancashire scheme was saving 1,000 lives a year from tuberculosis. Children born in Lancashire today had an expectation of life sixteen years longer than their grandfathers had. The improvement in general health had laid the foundation for this change. Sir George paid a tribute to the value of nursing both in the institution and in the home in the fight against tuberculosis.

Wrightington Hospital has a very definite relation to the Lancashire



[Sketch prepared by County Architect.

Lancashire Daily Post.]

WRIGHTINGTON TUBERCULOSIS HOSPITAL, NEAR WIGAN, LANCASHIRE: GENERAL BIRD'S-EYE VIEW.

tuberculosis scheme. Since 1912, County Councils and County Borough Councils have been charged by Parliament with the responsibility of preparing and carrying out schemes for the prevention and treatment of tuberculosis. The administrative county of Lancaster contains a population of 1,802,700 and an area of 1,048,363 acres. For dispensary purposes it is divided into five large areas (average population 320,000) and three sub-areas. Each large area is in the charge of a consultant tuberculosis officer, with a staff of assistants and tuberculosis health visitors. The consultant tuberculosis officers also do hospital work, and the medical superintendents undertake some dispensary work. As an illustration, the medical superintendent of the Wrightington Hospital is also responsible for the dispensary work in the Wigan County sub-area around the hospital. Thus the dispensary side of the work is not divorced from the institutional side. The scheme of the Lancashire County Council provides for the treatment of tuberculosis occurring in its several forms—viz., (1) pulmonary tuberculosis, or consumption, most commonly seen in young adults in the prime of life; (2) non-pulmonary tuberculosis, which affects usually the glands, joints, and bones; and (3) combined pulmonary and non-pulmonary. The number of living cases on the dispensary registers at the end of 1932 was 7,888 (4,357 pulmonary, and 3,531 non-pulmonary). Cases of tuberculosis or suspected tuberculosis are referred by the general medical practitioners to the tuberculosis officers at the dispensaries for their opinion as to diagnosis and treatment. The tuberculosis officers consider each case on its merits, and, where necessary, recommend treatment at appropriate institutions—lung cases at sanatoria and pulmonary hospitals, and surgical cases at special (*e.g.*, Wrightington) and general hospitals. Altogether about 1,000 beds are occupied by tuberculous patients, in the proportion of 700 for pulmonary cases to 300 non-pulmonary cases. The Wrightington Hospital has not been opened sufficiently long for any results of treatment to be tabulated, but we know from the results at other hospitals that modern methods of treatment of non-pulmonary tuberculosis give satisfactory results. Thus of 2,600 county patients first treated for non-pulmonary disease during the years 1920-24, 75 per cent. have now recovered or have the disease quiescent. The decline of non-pulmonary tuberculosis may be measured by the following figures: 1914, 572 deaths; 1923, 412 deaths; 1932, 238 deaths. In other words, if the deaths in 1914 be expressed as 100, then proportionately the deaths in 1923 would be represented by 72, and in 1932 by 41.

The Wrightington Hospital is situated close to the high-road between Standish and Parbold, about six miles north-west of Wigan; altitude 300 feet above sea-level. A scheme for the adaptation of the Hall as a nurses' home and the erection of new buildings to provide accommodation for 226 patients was adopted by the County Council and approved by the Ministry of Health towards the end of 1927. The accommodation provided is utilized as under:

Adults: Three one-storey pavilions (two for men and one for women). One pavilion contains 40 beds, a warm ward for four beds and single cubicles for two beds, and the two other pavilions accommodation for 30 non-

pulmonary cases and cubicles for 10 combined cases of pulmonary and non-pulmonary tuberculosis ... ..	126	beds.
Children: Two one-storey pavilions for non-pulmonary tuberculosis—each pavilion containing 40 beds, a warm ward for four beds and single cubicles for two beds ...	92	„
Isolation Block ... ..	8	„
	<hr/> 226 beds.	

In addition to the patients' pavilions, there are the following buildings: Treatment block, kitchen block, official block, power house, laundry, quarters for nurses and maids (modern portion of the Hall and an annexe), medical superintendent's house, seven cottages for male employees, outbuildings (utilized for garages, workshops, stores, etc.). The capital cost of the Wrightington Hospital has worked out at £621 per bed exclusive of land, or £671 per bed with land. The Ministry of Health made a grant of £180 per bed towards the capital expenditure. The water supply is obtained from Robin Hood Well ( $1\frac{1}{4}$  miles distant), which is the property of the County Council. New sewage works are installed on the estate 250 yards from the nearest pavilion. The electric light is from the public supply. The initial plans were drawn by the ex-county architect, Mr. Henry Littler, and the scheme was completed by the present county architect, Mr. Stephen Wilkinson, F.R.I.B.A. The contractors were Messrs. J. A. Milestone and Son, Ltd., of Wallasey.

The following are the principal members of the staff of the hospital: Medical Superintendent, Dr. E. H. Allon Pask (who is also Consultant Tuberculosis Officer for the Wigan County Dispensary Area, population 116,562); Visiting Consulting Orthopædic Surgeons, Mr. T. P. McMurray and Mr. H. Platt; Visiting Consulting Ophthalmic Surgeon, Mr. H. H. Bywater; Visiting Dental Surgeon, Mr. J. J. Ward; Assistant Medical Superintendent, Dr. E. H. W. Deane; Junior Assistant Medical Officer, Dr. D. I. A. Williams; Matron, Miss E. Moseley; Assistant Matron, Miss M. Richards; Clerk and Steward, Mr. H. E. Watson, and two assistants; Teaching Staff—for children, Head, Mrs. M. Keyworth, and two assistants; for adults, two visiting lecturers and one visiting handicraft teacher. Nursing staff, 9 sisters, 20 staff nurses, 34 probationers; Domestic staff, 41; engineers, joiners, chauffeur, gardeners, porters, and other outdoor staff, 16.

## NOTICES OF BOOKS.

## CONTINENTAL WORKS.

IMPERFECT knowledge of the physiology of the lungs and pleural cavities must be regarded as a grave deterrent to the scientific application and development of collapse therapy. Dr. Parodi in his latest work records his investigations and conclusions regarding the physical factors involved in the chest, and advances his thesis to show how the various changes in health and disease can be explained on a purely mechanical basis.<sup>1</sup> Considerable use of an ergomanometer in the measurement of intra-pleural pressures has been made, and a clear distinction between the "dépression statique endopleurale," in which the lung is at rest, and the "dépression de mouvement ou dynamique" is put forward. The weight of the lung is shown to be largely responsible for the static depression, and with apical disease in a non-adherent lung selective collapse is explained mechanically on this basis. Careful investigations have been made to establish important physical features as the centre of gravity of the lungs, and it appears that clinical and radiological observations correspond closely with the mechanical postulates advanced. From the pathological aspect it is interesting to note that the author has produced evidence to show that the earliest tuberculous lesions develop at the point of greatest tension—that is, along the shortest axes of the lobes—thus regarding trauma as a prime factor in the production of a phthisical focus. The application of collapse therapy is studied in detail particularly with reference to the principles which govern the A.P.T. The danger of compression acting as a traumatic agent on the lung is put forward and should serve as a warning against the use of excessive pressures. The contralateral pneumothorax of Ascoli is also discussed and is held to be justified if certain mechanical factors are satisfied. Suggestions to explain the irregular results of phrenicectomy appear to be soundly based. In order to simplify matters for the reader who does not wish to read the mathematical and mechanical arguments at length there is a *précis* at the head of each chapter. References are scarce, but the work constitutes a serious endeavour to explain some of the unsolved problems of the chest, and should certainly be studied by all those who are interested in the subject.

T. HOLMES SELLORS, M.Ch., F.R.C.S.

Dr. Albert Giraud of Grasse has produced a really admirable work on pulmonary tuberculosis.<sup>2</sup> To summarize, in a compact volume of less than 400 pages, a subject so vast, to digest a literature so immense, to hold the balance reasonably and convincingly between opinions so

<sup>1</sup> "La Mécanique Pulmonaire." By F. Parodi. Adapté par P. Lefèvre. Pp. 223. Paris: Masson et Cie, 120, Boulevard Saint-Germain. 1933. Price 36 fr.

<sup>2</sup> "Précis de Phthisiologie: Evolution Générale Formes Cliniques Diagnostic et Traitement de la Tuberculose Pulmonaire chez L'Adulte." By Albert Giraud (de Grasse). Pp. 390, avec 25 figs. dans le texte, 19 planches hors texte. Paris: G. Doin et Cie, 8, Place de L'Odéon. 1933. Price 60 frs.

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diverse, to retain essentials and to reject digressions into ingenious but doubtful and sterile hypotheses, to assign a proper measure to the innumerable aspects of type, diagnosis and treatment is no mean task. Yet the author has succeeded. He has given an extremely well-balanced and judicial summary. The indications for artificial pneumothorax, gold treatment, oleothorax, adhesion cutting, and the various surgical procedures are, to my mind, excellent. They serve both to initiate the uninstructed, and to curb the impetuous enthusiasm of those who, by nature, seem unable to resist an over-exuberant advocacy of some particular theory or method. I have nothing but unstinted admiration for the type and the large number of beautifully reproduced skiagrams and illustrations. It is a model that might well be followed by others. Practically every type of tuberculosis of the lungs is illustrated.

F. G. CHANDLER, M.D., F.R.C.P.

A second edition of Ulrici's book on pulmonary tuberculosis has recently been issued.<sup>1</sup> A detailed consideration of all aspects of the subject is supported by illustrations whose quality and value are admirable. Numerous X-ray skiagrams are almost without exception unusually well reproduced and help to simplify the text. The existing Continental conception of the pathological anatomy of tuberculosis of the lungs is closely worked out in conjunction with X-ray and morbid findings, so as to justify the qualitative classification of the disease into exudative, productive, and cirrhotic forms. An uncommon feature in a work of this sort is a section on the psychology of phthisical patients, and well-known examples such as Molière, Chopin and Weber are quoted. An interesting modern touch is given by the coining of the term "Zauberbergkrankheit" from Thomas Mann's novel. With regard to treatment, operations for collapse therapy receive full recognition, though the indications are relatively briefly discussed as compared with the technique and effects. It is interesting to note that the more recently adopted forms of partial thoracoplastic procedures such as those of Lauer and Graf are viewed with favour. As a result of an experience with nearly 1,000 cases of phrenicectomy, some of the more unusual complications such as kinking of the œsophagus after exsufflation are well depicted. Thoracoscopy with division of adhesions is well supported, but oleothorax receives more scant recognition. A full section on laryngeal tuberculosis is provided, and in regard to treatment a leaning towards local excision and cauterization may be detected. Viewed from the English standpoint the chapter headings and spacings appear rather cramped, but the production is otherwise excellent.

T. HOLMES SELLORS, M.CH., F.R.C.S.

Drs. W. Brednow and E. Hofmann have just issued a second edition of their fine Atlas of Skiagrams illustrating various morbid conditions of the lungs.<sup>2</sup> In the investigation of diseases of the chest

<sup>1</sup> "Diagnostik und Therapie der Lungen- und Kehlkopf-Tuberkulose." Von Dr. H. Ulrici, Arztl. Direktor des Tuberkulosekrankenhauses der Stadt Berlin in Sommerfeld (Osthavelland) und des Fürsorgeärzts für Lungenkranke in Berlin-Charlottenburg. Zweite Auflage. Pp. v+389, mit 269 Abbildungen. Berlin: Julius Springer, 23-24, Linkstrasse. 1933. Price R.M. 25; geb. R.M. 26.40.

<sup>2</sup> "Röntgenatlas der Lungenkrankungen für Leitfaden für Ärzte." Von Dr. W. Brednow, Privatdozent für innere Medizin und Röntgenologie an der Universität Göttingen, und Dr. E. Hofmann, Facharzt für Röntgenologie Stadt Kranken-

particularly pulmonary tuberculosis, X-ray examination is now considered indispensable to sound diagnosis and necessary in all surgical measures of treatment. The Atlas before us contains no less than 105 full-page plates of fine skiagrams. Accompanying each is an account of the case and the chief points illustrated. The first six plates indicate conditions found in the normal chest. The series 7 to 57 are a particularly fine collection of skiagrams indicating various forms of tuberculosis of the lungs. All workers with X-rays in the examination of the chest will be well advised to obtain a copy of this "Röntgenatlas."

### TUBERCULIN IN EYE AFFECTIONS.

Dr. Camac Wilkinson has written a suggestive work on the use of tuberculin in ophthalmic disease.<sup>1</sup> Whether or no we all agree that "tuberculin in diagnosis, tuberculin in treatment, and tuberculin in prevention form a tripod upon which rests the solution of the problem of tuberculosis," it is well that Dr. Camac Wilkinson has again given us a reminder of the value of this agent in the diagnosis and treatment of suitable cases. Whereas the latter part of the book is a plea for the use of tuberculin in "phthisis," the first part gives records of some forty-three cases in which there was tuberculosis of the eye. Ophthalmologists notoriously adhere to the best in "old-fashioned methods," as is evidenced by their continued use of leeches for acute iritis, in which their value is so immediately obvious. Long after tuberculin was almost given up as a therapeutic agent in general medicine it was commonly used by ophthalmologists in the treatment of such diseases of the eye as were suspected to be tuberculous. Though not frequently employed recently it has found increasing favour. There can be no doubt as to the benefit which results from tuberculin when used in suitable cases and in suitable doses. It would seem that, if tuberculin is so useful in some chronic inflammations of the eye, it must, by deduction, be similarly useful in tuberculous affections elsewhere, and we must admit that, though Dr. Camac Wilkinson is certainly an enthusiast, there is some truth in many of his arguments.

MONTAGUE L. HINE, M.D., F.R.C.S.

### PULMONARY TUBERCULOSIS.

Dr. H. Morriston Davies of the Vale of Clwyd Sanatorium is responsible for the latest English treatise on Pulmonary Tuberculosis, a work of exceptional interest and value, and certainly one which no serious student of tuberculosis can afford to neglect.<sup>2</sup> It is the most up-

anstanalten Wuppertal-Barmen. Zweibe wesenblich vermehrl. Auflage, ss. 206, mit 105 gaizseitigen Röntgenbildern. Berlin: Urbant and Schwarzenberg, Friedrichstrasse, 105 B. Price R.M. 10.50 geh., 12 geb.

<sup>1</sup> "Tuberculin: Its Vindication by Technique, with Special Reference to Tuberculous Disease of the Eye." By W. Camac Wilson, M.D. (Lond.), F.R.C.P., Hon. Director Tuberculin Clinic, 11, Nottingham Place, London. Pp. 93, with 31 illustrations. London: J. and A. Churchill, 40, Gloucester Place, Portman Square, W. 1. 1933. Price 10s. 6d.

<sup>2</sup> "Pulmonary Tuberculosis: Medical and Surgical Treatment." By H. Morriston Davies, M.A., M.D., M.Ch. (Cantab.), F.R.C.S. (Eng.), Medical Superintendent, Vale of Clwyd Sanatorium; Consulting Surgeon to University College Hospital, City of London Hospital for Diseases of the Heart and Lungs, King Edward VII. Welsh National Memorial Association, Lancashire County Sanatoriums, Cheshire Joint Sanatorium. With chapters on Tuberculosis in Childhood

to-date, comprehensive and practical exposition of the medical and surgical treatment of pulmonary tuberculosis at present available in this country. The author is one of the few physician-surgeons who combine in one personality knowledge, experience and technical skill in dealing with the clinical, radiological and surgical aspects of pulmonary tuberculosis. In his preface Dr. Morrision Davies properly urges that the main advance in the treatment of the disease has been along surgical lines, and it is because he devotes special consideration to this aspect that his book is of special value. Truly, as the author insists, medicine and surgery must co-operate: "At this stage of progress it is a retrograde step to consider the medical apart from the surgical side of treatment, or *vice versa*," and it is added, "No case should be viewed from the one aspect only. For every patient the potentialities of each method of treatment should be considered, and should be available." It is from this advanced point of view that Dr. Morrision Davies has prepared his book. The work opens with chapters dealing with infection, symptomatology and clinical signs, diagnosis, prognosis, treatment and after-care. Dr. W. Burton Wood provides a thoughtful exposition of Tuberculosis in Childhood, and Dr. L. S. T. Burrell is responsible for the Survey of Specific Treatment. But the main interest of the volume centres in the latter half (Chapters XIII-XXIII) containing detailed accounts with instructive skiagrams and other illustrations of collapse therapy and the various surgical measures which are now being successfully carried out in an ever-increasing number of cases. The procedures are described and discussed in detail, and no surgeon desiring to undertake any of the new surgical measures for the relief of tuberculosis involving thoracic contents can afford to be ignorant of Dr. Morrision Davies' contribution to the subject. We would direct special attention to the concluding chapter in which the author discusses the rôle of sanatoria at the present day, and sets forth his own forecast regarding lines along which future development should take place. The paragraphs in which the author indicates that those who are in charge of sanatoria and consultants who specialize in tuberculosis have need of a physician-surgeon knowledge as to the possibilities of treatment will doubtless lead to some criticism. At the end of almost every chapter is a select bibliography. The volume is admirably printed on excellent paper and is effectively illustrated, special praise being due to the radiographic plates. Publishers have loyally co-operated with the author in making this fine volume worthy of a foremost place in British medicine.

### THE RIDDLE OF TUBERCULOSIS.

Dr. Gordon Tippet in his new book on tuberculosis has attempted to solve the riddle of tuberculosis with the enthusiasm of a scientific student and the zeal of a convinced reformer.<sup>1</sup> The work is suitably

by W. Burton Wood, M.A., M.D. (Cantab.), M.R.C.P. (Lond.), and Specific Treatment by L. S. T. Burrell, M.A., M.D. (Cantab.), F.R.C.P. (Lond.). Pp. 464, with 69 text figures and 77 radiographic plates. London: Cassell and Company, Ltd., La Belle Sauvage, E.C. 4. 1933. Price 27s. 6d. net.

<sup>1</sup> "Tuberculosis: Its Cure and Prevention." By Gordon Tippet, M.B. Pp. xi+242, with frontispiece showing tuberculin reactions according to the Mantoux method. London: Methuen and Co., Ltd., 36, Essex Street, W.C. 2. 1933. Price 7s. 6d.

dedicated to Lord Moynihan and is addressed to laymen and members of the medical profession interested in the problem of tuberculosis. Dr. Tippet has brought together much valuable data and has himself both at home and abroad gathered important data bearing on his subject. Indeed, considerable sections of his work consist of extracts from the writings of such well-known tuberculosis authorities as Sir Robert Philip, Minchin, Stanley Griffith, Pottenger, Dixon, Blacklock, Krause, Savage, Fishberg, together with selections from Sir George Newman's Reports and other authoritative publications. Dr. Tippet is dogmatic in his expression of opinions and condemnatory of the policy of *laissez-faire* which prevails everywhere. In his preface he claims that "in the vast majority of cases the disease [tuberculosis] is not diagnosed, and accordingly not treated, until it has progressed so far as to be practically incurable; until, that is to say, it has started to destroy portions of bones, joints, lungs or other organs." It is stated that "the medical profession has not so far advocated any measure that has had the slightest effect in reducing the number of persons infected, and that the present National Scheme has . . . failed." Dr. Tippet adds: "The Reports of the Chief Medical Officer to the Ministry of Health show that only three out of every hundred recorded cases can be written off the Public Registers each year as 'completely cured.'" Dr. Tippet says: "The whole position calls for public inquiry," and he adds: "The country has been spending large sums annually in building institutes and sanatoria for the treatment of tuberculosis, and there are thousands of doctors, nurses, attendants, and officials of all kinds working in connection with the National Scheme." Moreover, "the treatment is crude, unscientific, and very costly." Dr. Tippet definitely says that his aim has been to provide "some idea of the modern treatment about the disease and to show the need for a complete revision of that teaching in the light of facts." The subject-matter is set forth in eleven chapters. The author would appear to be an advocate of the use of tuberculin in the diagnosis and treatment of tuberculosis. Considerable space is devoted to the discussion of tuberculin tests, and numerous extracts are made from the Symposium on this subject published in the July, 1932, issue of this JOURNAL. The chapters dealing with infection and immunity are of special interest and value. In the sections relating to treatment there is much that deserves criticism and no little that will arouse controversy. Among the numerous books which have recently appeared on the tuberculosis problem, Dr. Tippet's is one of the most stimulating and suggestive. There are dogmatic statements lacking sufficient evidence to justify them, unnecessary repetitions and redundancies, conflicting statements, a lack of orderly array, and views which many will scarcely consider orthodox; but in spite of deficiencies and defects the author has succeeded in producing a remarkable work, timely and serviceable, which cannot be neglected: it should arouse discussion and bring about a new spirit of inquiry, improvements in our methods of research, and lead to the establishment of a really thorough investigation of the whole riddle of tuberculosis by recognized authorities and expert students of the subject.

## THE SURGERY OF THE THORAX.

Mr. Holmes Sellors has provided a much needed, compact, and yet comprehensive and up-to-date handbook on the surgery of the thorax.<sup>1</sup> It is a member of the excellent and practical series of Modern Surgical Monographs of which the general editor is Mr. G. Gordon Taylor. Dr. R. A. Young in his sympathetic and commendatory preface points out that Mr. Sellors has specially prepared himself for the arduous and responsible task of presenting a practical and critical review of the principles and practice of thoracic surgery by visiting some of the most important of Continental clinics, including certain of the chief Scandinavian and Danish centres. Dr. Young indicates that though thoracic surgery is long past the experimental stage, it is still in a tentative or formative phase of its development. It demands more than specialized technique: a specialized team is essential, "sympathetic and understanding co-operation, with mutual criticisms, between physician and surgeon, in deciding on treatment is particularly necessary, if the best is to be achieved. The surgeon requires highly efficient and specialized methods of anaesthesia and experienced nursing assistance, both at his operations and in the after-care." Dr. Young is a forward-looking physician with sympathy and understanding for such work as Mr. Sellors seeks to forward. "If surgical intervention develops on right lines there can be little doubt that further improvements in method and in technique will widen its scope still further, at any rate until the time when medicine is able to deal more effectively and more preventively with the early stages of disease." Mr. Sellors' able monograph should be studied by all young and progressive surgeons, and by all physicians who have to advise in regard to the diagnosis and treatment of chest cases. We particularly direct the attention of tuberculosis officers, medical superintendents of sanatoria and all advisers having to deal with cases of intra-thoracic tuberculosis to Mr. Sellors' fine work. It opens with a very necessary and serviceable presentation of anatomical and physiological considerations. Then follow chapters dealing with Diagnosis, General Principles of Treatment, Anaesthesia and Operative Technique. There are also chapters on Injuries of the Chest, Empyema, Diseases of the Bronchi, Abscess of the Lung, Tumours of the Thorax, Hernia of Diaphragm and Lung, together with sections relating to the Surgery of Heart and Pericardium and the Oesophagus. The concluding chapter is devoted to Sympathetic Surgery. Readers of this JOURNAL will be specially interested in the chapter devoted to Pulmonary Tuberculosis and its Treatment by Surgical Measures, particularly Artificial Pneumothorax and Thoracoplasty. The series of skiagrams add much to the value of this chapter. In the sections dealing with Operative Technique there are detailed accounts of resection of ribs, bronchoscopy, artificial pneumothorax, oleothorax, thoracoscopy, open intrapleural pneumolysis, extrapleural pneumolysis, plombierung, phrenic evulsion or phrenicectomy, thoracoplasty, thoracotomy, lobectomy and mediastinotomy. Mr. Sellors has produced a work which at present is almost unique in

<sup>1</sup> "Surgery of the Thorax." By T. Holmes Sellors, M.Ch., M.A., B.M. (Oxon), F.R.C.S. (Eng.), Assistant Surgeon to Queen Mary's Hospital for the East End. With a Preface by R. A. Young, C.B.E., M.D., F.R.C.P. Pp. xxiii+519, with 140 illustrations, including 11 plates in colour. London: Constable and Co., Ltd., 10 and 12, Orange Street, W.C. 2. 1933. Price 22s. 6d.

English medical literature. It is just the handbook which is needed to meet the requirements of both physicians and surgeons if chest cases are to be wisely advised and hopefully dealt with. The work will of course have to undergo criticism, but it will undoubtedly assist in furthering progress, and it may be hoped will enable many British surgeons to advance the surgery of the thorax in this country, where it must be admitted we have fallen far behind the enterprise and standards of our Continental confrères. The publishers are to be congratulated on having produced Mr. Sellors' monograph in a worthy form.

#### THE STUDY OF SICK CHILDREN.

The late Dr. John Thomson of Edinburgh, much beloved by students and friends, and greatly honoured as a distinguished pediatrician, in 1898 published the first edition of his justly famous work on the clinical study and treatment of sick children. Dr. Thomson always and rightly urged that pediatrics was to be viewed not as a speciality but as an extension of general medicine, and his work was written from this standpoint. The work, after passing through four editions, the last appearing in 1925, has now been issued in a fifth edition, re-written and enlarged by Dr. Leonard Findlay, who has been faithful to the aims of his master, and has maintained Dr. Thomson's work in the unique position which it has so long occupied in British medical literature devoted to the consideration of sick children.<sup>1</sup> Practitioners and students of today must secure a copy of this notable work. It provides an outlook and means for practical service which no other book devoted to the study and treatment of sick children can rival. Dr. Findlay is to be congratulated on his work, for while maintaining the spirit and purpose of the author, he has made such additions and revisions as were necessary to make the book complete, up-to-date, and in every way one to meet the requirements of today. Among the thirty-nine chapters composing the volume is an admirable one on Tuberculosis. This we specially commend to the attention of all who have to deal with tuberculous children. It opens with a lucidly expressed account of active and latent tuberculosis. Considerable attention is directed to the chief forms of tuberculin tests. Special attention is given to a discussion of bovine and human types of tuberculosis met with in early life, and reference is made to the recent work of Dr. J. W. S. Blacklock. The various clinical forms of tuberculosis are dealt with in a series of carefully presented sections. In regard to radiography it is definitely stated that "It can be laid down as an absolute law that no radiographic picture of the chest is pathognomonic of any one diseased process. The radiogram can only be correctly read along with the physical examination and clinical history of the patient." The chapter is effectively illustrated with skiagrams. All who have participated in the production of this new edition of Dr. John Thomson's great work are to be congratulated. It is admirably produced and is worthy to retain its prominent place in British medical literature.

<sup>1</sup> "The Clinical Study and Treatment of Sick Children." By John Thomson, M.D., LL.D., F.R.C.P. (Lond. and Edin.). Fifth edition, re-written and enlarged by Leonard Findlay, M.D., D.Sc., M.R.C.P., F.R.F.P.S.G., Princess Elizabeth of York Hospital for Children, London. Pp. xxxvi+1,112, with 344 illustrations. Edinburgh: Oliver and Boyd, Ltd., Tweeddale Court, and 33, Paternoster Row, London. 1933. Price 30s.

## SIGNS AND SYMPTOMS.

Professor McDowall's elaborate textbook for medical practitioners is now in its second edition.<sup>1</sup> The volume is based on the author's earlier work "Clinical Physiology," and furnishes an admirable, comprehensive and up-to-date introduction to fundamental principles and essential data forming the foundations of medical diagnosis. It is indeed a revealing exposition of the scientific aspects of clinical medicine. The subject-matter is effectively presented in forty-two chapters, opening with a Study of Life as a Clinical Entity. Then follow studies of applied physiology as required by the progressive diagnostician engaged in the daily duties of actual practice. It is a work which every enterprising doctor should possess. We would particularly commend it to the consideration of tuberculosis officers, medical superintendents of sanatoria and other institutions, professional men and women engaged in special departments of medicine who, with expert knowledge regarding a special class of cases, should have a wide outlook and possess a comprehensive knowledge of general physiology and general medicine. Readers of this JOURNAL will be particularly interested in the chapters dealing with Breathing and Failure of Respiration, Cyanosis and its Relation to Breathlessness, Protective Respiratory Reflexes, Physiological Principles in Feeding, Vitamins, Metabolism of Food, Intestinal Movements and Pain, Body Weight, Growth, The Temperature of the Body, The Effect and Importance of Exercise and Rest, and Protection against Disease. Such an enumeration will be sufficient to indicate to the wideawake practitioner the importance of studying Professor McDowall's book in its entirety. There is a serviceable bibliography. We hope that the next edition may be more generously illustrated. There are several interesting references to tuberculosis. It is pointed out that obscure conditions such as early tuberculosis may often be suspected by the discovery of a rapid pulse. Reference is made to the malar flush common in tuberculosis, and the special distribution of lupus erythematosus. Mention is also made of the Pirquet and Mors tuberculin tests. The publishers deserve commendation for the worthy way in which Professor McDowall's fine work has been produced.

## MANUALS FOR MEDICAL ADVISERS AND WORKS OF REFERENCE.

Miss Clephan and Mrs. Hill, both of whom have had exceptional experience in regard to radium therapy as practised at London hospitals, have published an excellent and long needed introduction to the study of radium and its rôle in medicine.<sup>2</sup> Treatment with radium is now

<sup>1</sup> "The Science of Signs and Symptoms in Relation to Modern Diagnosis and Treatment: A Textbook for General Practitioners of Medicine." By Robert John Steward McDowall, D.Sc., M.B., F.R.C.P.E., Professor of Physiology, King's College, University of London. Second edition. Pp. xv+440, with 7 figs. London: William Heinemann (Medical Books), Ltd., 99, Great Russell Street, W.C. 1933. Price 21s.

<sup>2</sup> "An Elementary Handbook on Radium and its Clinical Use." By D. F. Clephan, Full-time Assistant under the Medical Research Council at the Barnato Joel Laboratories, Middlesex Hospital, and H. M. Hill, Radium Officer at the Royal Free Hospital. Pp. ix+164, with 16 illustrations. London: Humphrey Milford, Oxford University Press. 1933. Price 7s. 6d.

employed on a national scale, and as Professor Sidney Russ indicates, in his commendatory introduction, members of the medical profession and others working in connection with departments dealing with radium therapy stand in need of a manual of moderate compass presenting the essentials of the subject. This is admirably accomplished in this compact, lucidly expressed and comprehensive handbook. It is a work which should be studied by every medical adviser and members of the nursing staff and technical assistants working in a radium department. The history of radium therapy is set forth in a really fascinating form, together with particulars regarding radioactivity and radioactive elements. The principles of radium therapy are explained and detail given regarding technical procedures in applying radium and radon. There are also chapters on the treatment of malignant disease in special sites, complications and contra-indications, and the work closes with a thoughtful consideration of the present position of radium therapy in the treatment of malignant disease. Serviceable bibliographical references appear at the end of several of the chapters.

Dr. T. W. Hill has provided an exposition of the far-reaching and elaborate machinery of present-day organization and administration of our English Health Service in a form which, while of interest to members of the medical profession, can also be appreciated by thoughtful men and women interested in medico-sociological questions.<sup>1</sup> Sir Arbuthnot Lane in his commendatory preface refers to the decentralization which hitherto has been a feature of our British system, and has afforded a striking contrast to the rigid concentration of authority typical of most Continental systems. Dr. Hill, while giving a faithful account of our public health service, does not hesitate to criticize and express his own views, and put forward proposals which some will consider revolutionary. The work opens with a short historical preface, and then follows the subject-matter, effectively arranged under the following general headings—Public Health Administration in England and Wales, Environmental Hygiene, Personal Hygiene and Racial Hygiene. The author in his Epilogue does not hesitate to indicate his own standpoint: "I am opposed to any Government that attempts to cut down the social services; I am opposed to any political party that seeks to reduce the standards of life without which health is impossible; I am bitterly opposed to any authority that prolongs poverty and deprives men, women and children of the happiness which is their natural heritage. I am for the State. I am the enemy of all who would dethrone the State." Many of Dr. Hill's proposals will doubtless arouse criticism, but they certainly merit unprejudiced consideration. His contentions are accompanied by statistical and other thought-compelling data. There are excellent sections on Housing and Town Planning, Food and Drugs, Medical and Health Services. The problem of tuberculosis is referred to in several parts of the book. The most suggestive and controversial sections of the work deal with questions of racial hygiene, where the author shows himself as a thoroughgoing eugenicist. He is a convinced advocate of sterilization for mental defectives. And with regard to the marriage and steriliza-

<sup>1</sup> "The Health of England." By T. W. Hill, M.D., D.P.H., Deputy Medical Officer of Health, West Ham. With a Foreword by Sir W. Arbuthnot Lane, Bart., C.B. Pp. 301, with illustrations. London: Jonathan Cape, 30, Bedford Square, W.C. 1933. Price 6s.

tion of consumptives, Dr. Hill says, "Where active pulmonary disease is present marriage should be prohibited"; but adds, "Where the disease is either arrested or cured marriage ought not to be forbidden, provided such person is sterilized." Dr. Hill has vision and courage and a faith which make the attainment of national health England's greatest achievement. It is to be regretted that so valuable and timely a work should have been issued without an index.

Dr. Leonard Williams' justly popular and most practical manual on *Minor Maladies* was first published in 1906, and after various re-printings and passing through several new editions has now reached its formal sixth edition, revised and brought up to date.<sup>1</sup> Senior practitioners have for long valued this collection of most practical studies, and it is well that the attention of younger members of the medical profession should have their attention directed to its particular merits. We would advise tuberculosis officers and medical superintendents of sanatoria and other institutions to avail themselves of Dr. Williams' experience and advice so effectively set forth in his practical book. Certainly it is a work which panel doctors and all engaged in general practice cannot afford to neglect. Some idea of the scope of the volume can be indicated by an enumeration of the studies composing the collection: Colds, Coughs and Sore Throats; Indigestion, Constipation, Diarrhoea, Vomiting, and Giddiness; Rheumatism, Neuralgia, Headache; Salient Symptoms; Minor Glandular Insufficiencies; General Health; Advancing Years; Insanity; and Some Drugs and their Uses. In the first chapter there is much having bearing on Tuberculosis. Dr. Williams deals with the pathology and treatment of the Common Cold; indicates the causes of cough and the ways in which this troublesome symptom can best be dealt with; and suggests lines of management for influenza cases, and patients afflicted with sore throat, tonsillitis and feverish colds. Dr. Williams directs attention to some of the morbid states met with in tuberculous subjects, due probably to the influence of tuberculous toxins, such as pyrexia, undue irritability of the nervous system as shown by psychical characteristics, anæmia, functional aphonia, and an exalted sexual appetite. There are suggestive notes on "pretuberculosis," a term which the author admits "the exact meaning of which still awaits explanation." The publishers have issued the new edition of Dr. Williams' book in a compact and convenient form and at a price which is no more than that charged for an ephemeral novel.

Sir John Bland-Sutton is not only a pathologist, surgeon, and leader in scientific medicine of world-wide distinction, but he is also a traveller and archæologist who has made valuable literary contributions to our knowledge regarding lands, peoples, and animals in process of evolution. In 1910 Sir John explored parts of Uganda, including the great Lake Victoria district, the Rift Valley and its volcanoes, and the native and animal life of this wonderful region. On his return home Sir John published an account of his journey, under the title of "Man and Beast in Eastern Ethiopia." This has long been out of print, and at last the distinguished author has been induced to issue a popular account under

<sup>1</sup> "Minor Maladies and their Treatment." By Leonard Williams, M.D. Sixth edition. Pp. xlii + 420. London: Baillière, Tindall and Cox. 1933. Price 7s. 6d. VOL. XXVII.

the present title of "Men and Creatures in Uganda."<sup>1</sup> This attractive volume with its numerous instructive illustrations should appeal not only to many members of the medical profession, but to all Britishers interested in the development of Uganda, its people, beasts, birds, and natural features. The description of the Rift Valley—"an uncaged Zoo"—is particularly appealing. We join with Sir John's former students, many friends and admirers everywhere in offering congratulations and thanks, for many will appreciate his public spirit in issuing this volume in so beautiful a form and at a price which is within the reach of all likely to desire the work.

Dr. James Fanning's manual on medicine for nurses will be helpful to women undergoing training for the nursing profession and of service to those responsible for the provision of suitable instruction.<sup>2</sup> It is based on formal lectures delivered by the author, and it is intended that the book should be read in conjunction with the ordinary textbooks of nursing. Within 136 pages an excellent survey of essentials is presented in a form which nurses will be able to appreciate. Concise descriptions are given of the chief varieties of tuberculous disease.

A second and enlarged edition of Dr. W. Annandale Troup's enlightening manual on the application of infra-red rays for therapeutic purposes has recently been issued.<sup>3</sup> The work, which is intended for the general medical practitioner, provides a lucid, succinct, and practical account of the nature and action of these rays and the best technique for their use in medicine. Excellent results have been obtained by infra-red radiation in a number of pathological states and especially where pain is a disturbing feature. Physiotherapists will find much in the pages of Dr. Troup's handbook which will prove of service. It would seem that infra-red radiations if judiciously employed may be of assistance in dealing with the rheumatic, neuralgic, and other painful disorders not infrequently met with in tuberculous subjects undergoing sanatorium or open-air treatment. Certainly Dr. Troup's little work merits the unbiassed consideration of tuberculosis officers conducting dispensaries and medical superintendents dealing with patients in sanatoria.

The Sollux Publishing Company of Slough have issued an admirable handbook on the Technique of Actinotherapy for those qualified to practise this comparatively new department of applied medicine.<sup>4</sup> The introductory section provides a concise, informing, interesting general survey, and is followed by an alphabetically arranged list of pathological conditions in which light therapy can be of service together with instructions regarding technique and bibliographical references. Actinic

<sup>1</sup> "Men and Creatures in Uganda." By Sir John Bland-Sutton, Bart. Pp. 252, with 94 illustrations. London: Hutchinson and Co. (Publishers), Ltd., 37, Paternoster Row, E.C. 4. 1933. Price 12s. 6d.

<sup>2</sup> "An Outline of Medicine for Nurses." By James Fanning, M.D., D.P.H., Medical Officer of Health, Maldens and Coombe Urban District, etc. Pp. 136. Bristol: John Wright and Sons, Ltd., Stonebridge House, Colston Avenue. 1933. Price 2s. 6d.

<sup>3</sup> "Therapeutic Uses of Infra-red Rays." By W. Annandale Troup, M.C., M.B., Ch.B. (St. And.). With Foreword by Sir William Willcox, K.C.I.E., C.B., C.M.G., M.D., F.R.C.P. Second edition, enlarged. Pp. xi+90, with 19 plates. London: The Actinic Press, Ltd., 17, Featherstone Buildings, W.C. 1. 1933. Price 6s. 6d.

<sup>4</sup> "Actinotherapy Technique: An Outline of Indications and Methods for the Use of Modern Light Therapy." With Foreword by Sir Henry Gauvain, M.D., M.Chir. (Camb.), F.R.C.S. (Eng). Pp. 184. Slough: The Sollux Publishing Co. 1933. Price 6s.

radiation is now being extensively employed by qualified practitioners, who will find the new handbook most useful. A section is devoted to actinotherapy in various forms of tuberculosis, and a select list of references to the literature of the subject is provided. As Sir Henry Gauvain indicates in his Foreword the work is indispensable to all engaged in the practice of actinotherapy.

Dr. A. J. D. Cameron's studies on asthma and associated pathological states merits the consideration of those who have to deal with this type of case.<sup>1</sup> It is based on careful observations made in the course of general and hospital practice, and studies at the Sherwood Park Clinic and Spa, Tunbridge Wells. This suggestive monograph will appeal to all interested in allergic manifestations. The prophylactic and therapeutic measures advocated certainly merit unprejudiced consideration and trial. After a preliminary statement regarding the nature of asthma, come chapters on Basic Toxicosis, Ethmoid Sinus Implication, Irritability of the Nervous System, with discussions on the Biochemistry, Bacteriology and Treatment of the Asthma Syndrome. There is a short bibliography with an appendix containing records of cases. Dr. Cameron's little work deserves critical and unprejudiced consideration.

In tuberculous subjects sex instincts are often strongly developed, and many tuberculous women appear to be exceptionally fertile. It is now generally accepted that it is very undesirable for a tuberculous man or woman to undertake the responsibilities of parentage. Pregnancy in many tuberculous women is followed by a lighting up of a quiescent or slumbering tuberculous lesion which frequently runs an active course. Medical advice is naturally sought in regard to contraceptive measures in many tuberculous cases. As reliable instruction as to methods of birth control is not usually imparted in the customary medical curriculum it is very desirable that medical practitioners should be in a position to obtain accurate and reliable guidance when required. This is now available in Dr. Voge's elaborate work.<sup>2</sup> It is a serious study of the principles underlying various contraceptive measures. After a preliminary consideration of anatomical and physiological factors, the action of chemical agents upon the life of the spermatozoon is considered. A special chapter is devoted to the discussion of vehicles for spermicides. This is followed by a chapter on Proprietary Chemical Spermicides. In the section devoted to Practical Considerations mechanical agents are described and discussed. The following paragraph appears at the close of the concluding chapter: "Once the laboratory worker has systematically surveyed the ground and has provided sufficient information, then the medical practitioners can apply this knowledge and formulate their opinions. The destiny of the movement lies with them and under their guiding influence enormous strides can be made which will have their repercussion in increased health, happiness and prosperity." There is a select bibliography, and in an appendix appear many serviceable notes. The book is effectively illustrated.

<sup>1</sup> "Some Thoughts on Asthma." By A. J. D. Cameron, M.B., Ch.B. With a Foreword by Kenneth Playfair, M.A., M.B., B.Ch., M.R.C.P. Pp. viii + 178, with 4 plates, illustrations, chart and table. Bristol: John Wright and Sons, Ltd. 1933. Price 7s. 6d.

<sup>2</sup> "The Chemistry and Physics of Contraceptives." By Cecil I. B. Voge, B.Sc., Ph.D., F.R.S.E. With a Foreword by Robert Laton Dickinson, M.D., F.A.S.C. Pp. 288. London: Jonathan Cape, 30, Bedford Square, W.C. 1. 1933. Price 12s. 6d.

## PREPARATIONS AND APPLIANCES.

## HYGIENIC APPLIANCES AND THERAPEUTIC PREPARATIONS.

THE SHUTTERLITE is a novel portable electric lamp, ideal for use in bedrooms, nurseries, and wherever sick persons and others requiring a shaded light are to be found.<sup>1</sup> We particularly commend this ingenious lamp to doctors and nurses for service in hospitals, sanatoria, and nursing homes. The essential elements consist of a fixed screen and a shutter, which is attached to a firm shaft; by twisting the latter at its knurled portion the shutter is opened or closed, so enabling the light to be regulated. All glare is prevented by a cylinder, the upper half of which is of tinted silglas with a lower portion of semi-transparent material. A cowl throws the light downwards. Shutter, screen, cowl and base are finished in enamelled colours, while the shaft and knob are in chromium plate. (The price, wired, with lampholder and six feet of loose flex, is 35s.) The TWINLITE is a similar novelty in the form of a bracket which can be fixed above a double bed or between twin beds. (The price is 31s.)



THE CAMCO  
LEG REST.

THE CAMCO LEG-REST STOOL is an article of utility which should appeal to the physically sound and will certainly be appreciated by the sick.<sup>2</sup> It will be invaluable for the use of tuberculous and other patients in the care of whom rest is an indispensable factor. It provides complete relaxation for the lower limbs. The stool is constructed of wood and is attractive in appearance, being effectively upholstered. Its size is 20" x 13½" and it is 12" high when closed. It is self-adjusting, and the special devices for same are hidden. When closed it forms a convenient stool or seat, and a receptacle for slippers or papers. This ideal stool as an aid to perfect rest is acceptable for service anywhere, and in hospitals, sanatoria, and nursing homes it will be greatly appreciated. (The price is 20s.; special terms offered to nursing homes, etc.)

THE TELETTE POCKET TELESCOPE is a novelty which will appeal to everyone, and is likely to be specially appreciated by patients undergoing open-air treatment.<sup>3</sup> It is not a toy, but a unique optical instrument. In fact, it is an achromatic focussing telescope providing a magnification of five diameters. It can be employed to inspect near objects as well as those at a distance. In size it is less than an ordinary fountain pen, and enclosed in a little

<sup>1</sup> The Shutterlite and Twinlite are manufactured by Messrs. Best and Lloyd, Ltd., Handsworth, Birmingham, from whom full particulars can be obtained.

<sup>2</sup> The Camco Leg-REST Stool is supplied by the Carrington Manufacturing Co., Ltd., Sanderstead Road, South Croydon, with showrooms at 24, Hatton Garden, Holborn Circus, E.C. 1.

<sup>3</sup> Detailed particulars regarding the Telette Pocket Telescope can be obtained from the makers, Messrs. W. Watson and Son, Ltd., 313, High Holborn, W.C. 1.

leather case it is easily carried in the vest pocket as a constant companion for naturalist, archæologist, sportsman, and tourist; it is ready for service anywhere. (The price complete is 10s. 6d.)

THE PAGE AUTOMATIC DOOR CLOSER is an indispensable equipment for doors in hospitals, sanatoria, open-air schools, nursing homes, and all institutions where it is desirable to eliminate the banging of doors.<sup>1</sup> Every owner of a private house should be acquainted with the benefits of this effective appliance. The closer is available in "Major" and "Minor" forms for use with either ordinary or larger doors. (The price of the "Major" is 25s. and that of the "Minor" 12s. 6d.) This ingenious and reliable closer can be readily fixed to any door. It provides a perfect means for the avoidance of all rough closing of doors. Once adjusted it requires no further attention, and is unobtrusive in chromium or bronze finish and has a pleasing appearance.

THE UNIQUE FOLDING TABLE PAD will be welcome wherever dining and serving tables, sideboards, tea-trays and the like are to be preserved from hot plates, spilt liquids and other materials likely to damage a polished wooden surface.<sup>2</sup> These folding serving pads are heat and water proof, made in sections allowing for the covering of tables of all sizes. The top side of each pad is covered with a high-grade washable leather cloth, while the reverse side, which lies close to the polished surface, is covered with soft suedette. The pads may be obtained in a variety of colours, and are most serviceable for placing on tables for card games or for protection of surfaces when children are doing homework. These pads we can strongly recommend for use in hospitals, sanatoria and open-air schools. (The prices range from 2s. 6d. to 60s. according to size.)

THE STAR CORRUGATED WASH BOWLS only need to be known and used to be appreciated.<sup>3</sup> They are admirable for service in hospitals and sanatoria, institutions of all kinds, as well as in private houses. Constructed of steel and zinc covered, they are strong, yet light, and easy to handle, and each is provided with a spout and has two smooth handles. The corrugated surface provides strength without causing excessive weight. These bowls are available in different shapes and sizes. A special form known as the "Rub-a-Tub" will be appreciated where washing has to be done at home, and where time, strength and comfort are to be considered.

THE AGFA VISCOSE SPONGE is a novelty in cleaning appliances.<sup>4</sup> It is ideal for household use, and particularly for cleansing windows, bathrooms, kitchen equipment and motors. The sponge is dipped in water, squeezed out, and then passed lightly over the window or other surface to be cleaned. There is no limit to the range of its usefulness. The sponge does not become slimy, and is cleansed by rinsing in warm and soapy water. Soda does not affect the Agfa sponge prejudicially, and it can be boiled. (The price is 1s. 6d.)

THE WHITE KNIGHT GARDENING APRON is a practical equipment

<sup>1</sup> Particulars regarding the Page Automatic Door Closer can be obtained on application to the manufacturers, Messrs. Parker, Winder and Achurch, Ltd., Broad Street, Birmingham.

<sup>2</sup> Particulars regarding the Unique Heat and Waterproof Folding Table Pads can be obtained from the makers, the Unique Table Pad Company, Ltd., Cardiff.

<sup>3</sup> Particulars regarding the Star Corrugated Wash Bowl can be obtained from the makers, Messrs. Butterfields, of Shipley, Yorks.

<sup>4</sup> The Agfa Sponge can be obtained from Boots Ltd. and most chemists.

which women patients engaged in occupation therapy at sanatoria will find useful.<sup>1</sup> It is available in three designs—as apron to tie round the waist (price 25s. 6d.); as coat with apron front and sleeves (price 45s. 6d.); and as coat without sleeves (price 39s. 6d.). Detachable sleeves with elastic at elbows and at wrists are also available (price 4s. 6d. a pair). Each form of apron is padded and has waterproof kneeler. There are also pockets; scissors and captive gloves also provided. The aprons are made in multicoloured striped jute cloth, also self colour, brown, blue, green and red as desired. All who love to work in a garden will appreciate this sensible, artistic and serviceable equipment.

THE "VITAMATT" OVERLAY AND ORTHOPÆDIC CUSHIONS<sup>2</sup> will be of much service in hospitals, sanatoria, open-air schools, homes for cripples and other institutions. The thick laminated layer of specially prepared compressed varech, from which the overlay is made, has a high insulating value. The official tests of the National Physical Laboratory show this to be equivalent to a one-inch thickness of the best quality cork board. It therefore conserves body warmth, and allows for perspiration to be absorbed. The double-over portion of the overlay constitutes a foot-muff, conserves warmth for body and limbs, and prevents the development of cold feet, so that a hot-water bottle may be dispensed with. The overlay acts as a deodorant, and is of value for those patients who perspire readily. It is light in weight and easily removable, so saving time and labour as compared with the treatment of ordinary mattresses. The loose cover is made of the best quality obtainable unbleached calico and is very durable. It can be washed as required. A good quality jute is used for the inner cover of the overlay, and this and the varech filling are fastened together at frequent intervals. There is no risk of "caking" or lumpiness. Overlays have been used in Africa and elsewhere with great advantage. The prices are: "Vitamatt" overlay (standard size, 6' 6" x 3' 0"), 12s. 6d. each; "Vitamatt" overlay with foot-muff, 16s. 6d. each; orthopædic cushions (standard size, 18 inches square at the base, 8 inches high tapering to a thin edge) covered in linen ticking, 9s. 6d. each. Smaller cushions are sometimes asked for by medical advisers for special cases, and these can be made to any dimensions desired.

The "THERMOS" VACUUM JUG is a new model in the now indispensable "Thermos" range of products.<sup>3</sup> It is of an attractive, artistic, serviceable form suitable to stand anywhere, and particularly fitting to have a place by a patient's bedside and to stand on a table in hospital, sanatorium, nursing home, or elsewhere. The jug can now be obtained in varying shapes and of different colours; it has a casing of moulded thermolite. (Prices range from 12s. 6d. upwards.)

THE MAGNET BAKELITE ELECTRIC TORCH is a desirable equipment for doctor, nurse, and patient, as well as for everyone else who as a traveller, motorist, or home dweller realizes the importance of having

<sup>1</sup> Particulars regarding the White Knight Gardening Apron can be obtained from Susan Inventions, Ltd., 6, Cliveden Place, S.W. 1.

<sup>2</sup> Further particulars regarding the "Vitamatt" Overlay and Orthopædic Cushions can be obtained from the makers, Messrs. Huntley and Sparks, Ltd., De Burgh Road, South Wimbledon, S.W. 19.

<sup>3</sup> Particulars regarding the "Thermos" Jug and all other forms of "Thermos" products can be obtained on application to "Thermos" (1925) Ltd., 1-3, Fountayne Road, Broad Lane, Tottenham, N. 15.

always at hand for service anywhere a reliable means for efficient illumination.<sup>1</sup> The bakelite casing offers many advantages: high insulation, elimination of short circuiting and leakage, increased durability, attractiveness, and comfort in use. The torch is cylindrical, with bulbous cap and expanded base fitted with sliding switch, bronze finished, with lens backed by polished aluminium reflector. The batteries for the torch are of a superior quality, and are made at the Witton Works of the General Electric Company, Ltd. (The price complete is 5s. 6d.)

The COLUMBUS VACUUM EGG WHISK has found much favour in the kitchen of the ordinary home, and has greatly facilitated the work of makers of omelettes, ices, mayonnaises, puddings, cakes, etc.<sup>2</sup> It promises to be of real service in providing delicacies for tuberculous patients and other invalids and sick folk in institutions, nursing homes, or in their own dwellings. The whisk is ingeniously constructed, with container and plunger, and provides hygienic and labour-saving means whereby eggs can speedily be whisked and converted into a form suitable for use in the preparation of special diets. (Prices range, according to size, from 2s. 6d. to 3s. 6d.)

DECIDEX is a new table game which will be appreciated by many invalids, convalescents, and patients in hospitals, sanatoria, and nursing homes.<sup>3</sup> It is a novelty providing for the combination of personal skill with the hazards of pure chance. For those who are keen on stocks and shares and speculative endeavours it opens the way to interesting adventures.

THE GLASTONBURY SLIPPER-SHOES are ideal for all who in their own homes or elsewhere desire rest, comfort and protection for weary feet after a day of arduous duties.<sup>4</sup> Doctors and others engaged in professional affairs and public activities will appreciate this most desirable form of footwear. They provide admirable presents for patients in hospital, sanatoria, and nursing homes. These slipper-shoes are constructed at Glastonbury in Somerset, and are made from real English sheepskin with the natural fleece inside. They are attractive in appearance, easy to slip into, durable, and exceptionally comfortable. If desired crêpe soles and cushion heels can be provided. (Prices from 17s. 6d. to 21s.)

THE GRAFTON CLINICAL THERMOMETER Re-SETTER will be of service to doctors, nurses and all others who use a thermometer and desire to avoid breakages.<sup>5</sup> It is a simple case in which the thermometer is retained safeguarded against risks of damage, and yet providing a ready means whereby the mercury may be shaken down to the point desired. The case is fitted with a cross-piece, one arm of which has a ribbed pin and the other a swivel sleeve. With the thermometer in the case, bulb lowermost and the cap screwed on, the arm with the swivel sleeve is held in the left hand while the ribbed pin

<sup>1</sup> Particulars regarding the Magnet Bakelite Electric Torches can be obtained from the General Electric Co., Ltd., Magnet House, Kingsway, W.C. 2.

<sup>2</sup> Particulars regarding the Columbus Vacuum Egg Whisk can be obtained from Richard Ruben, Ltd., Columbus Patents, Regent House, Kingsway, W.C. 2.

<sup>3</sup> Particulars regarding Decidex can be obtained on application to the inventor, N. Seavers, 10, Hillingdon Road, Wavertree, Liverpool.

<sup>4</sup> The Glastonbury Slipper-Shoes are manufactured by Clark, Son and Morland, Ltd., Glastonbury, and can be obtained at all high-class shoe shops.

<sup>5</sup> The Grafton Clinical Thermometer Re-Setter Case is supplied by Walter Grafton and Son, Ltd., Footscray Road, Eltham, S.E. 9.

is rolled lightly between the first finger and thumb of the right hand, then let go, so allowing the case to spin on its axis. The centrifugal force developed brings the mercury down. (The price is only 1s 6d.)

THE PREMIO ALL-RUBBER BRUSHES mark a conspicuous progress in the provision of hygienic, durable, inexpensive brushes for personal service.<sup>1</sup> They are available in various forms, sizes and colours, suitable for cleansing hands and the skin of other parts of the body, also for use in the bath as well as for shampooing and massage purposes. These brushes do not injure the skin, the bristles do not become detached or bruise the cuticle, and the rubber is not injured by the hottest water, soap, or climatic conditions. For use in hospitals, sanatoria, schools and other institutions, as well as for domestic and personal service, the Premio All-Rubber Brushes are to be unreservedly recommended.

THE SELFRIDGE BEACH CUSHION is a serviceable novelty which will appeal to health-seekers and holiday-makers.<sup>2</sup> It will also be appreciated by patients in sanatoria and open-air centres and all who desire a hygienic life. The cushion is so constructed that it provides a useful bag for carrying towels, books or other personal belongings. When fully open it forms a protective ground-sheet. This novelty only needs to be used for its many advantages to be appreciated.

THE PONTINGS RUG-SHEET is a new protective waterproof equipment, being a combination of ground sheet and rug.<sup>3</sup> The rug is composed of wool and in colour is of air-force blue with darker borders. This is backed with a navy waterproof ground-sheet and bound with tape. The size is 60 inches by 80 inches. This novel combination provides just what many patients in sanatoria and elsewhere undergoing open-air treatment require and will appreciate. It is also an ideal equipment for motorists, hikers, campers, scouts, guides and others participating in cruising, picnics and the like, or holidaying at the seaside, moorlands or elsewhere. (The price is 8s. 11d.)

CHOCOLATES and SWEETMEATS of every kind are always welcome gifts, and for many patients in hospital, sanatoria, and elsewhere, provided they are of good quality and taken in reasonable quantities, these palatable preparations are usually highly beneficial. Reference may here be made to several reliable and acceptable forms of confection which doctors may safely recommend.

The Pascall sweetmeats and chocolates and other confections are of exceptional excellence, skilfully prepared from materials of high-class quality, and presented in artistic and attractive forms.<sup>4</sup> They are available in various kinds of pleasing receptacles of different shapes and sizes. The Pascall products may be thoroughly commended to the notice of doctors and nurses, for they provide reliable, delicious, and really serviceable sweetmeats suitable for all classes, every age, and are particularly acceptable for children and many patients. We would specially recommend Pascall's Barley-sugar, Butter Brazils, Mint Lumps, Sunshine Mallows, and Fruit Bonbons.

<sup>1</sup> Particulars and prices regarding Premio All-Rubber Brushes can be obtained on application to Premo Brushes, Ltd., the Rubber Works, Petersfield, Hants.

<sup>2</sup> The Selfridge Beach Cushion is supplied by Selfridge and Co., Ltd., Oxford Street, W. 1.

<sup>3</sup> The new Waterproof Rug-Sheet is supplied by Pontings, Kensington, W. 8.

<sup>4</sup> Particulars regarding the Pascall products can be obtained on application to James Pascall, Ltd., Mitcham, Surrey.

The house of Mackintosh is distinguished for the purity, high qualities, and variety of the products which come from Toffee Town.<sup>1</sup> Among the delightful confections manufactured at Halifax special praise must be given to the Toffee-de-luxe. This can be obtained in a number of attractive forms and in wholesome food combinations having high dietetic value.

The well-known firm of Kunzle deserves special mention. All the Kunzle chocolate specialities are made at the famous works in Birmingham from the finest grades of cocoa beans, pure cocoa-butter, and sugar, together with the best and purest flavouring materials.<sup>2</sup> The many processes of manufacture scientifically designed and directed assure the perfect smoothness and delicious flavour of Kunzle chocolates. All the Kunzle products are periodically analyzed by Messrs. Bostock Hill and Rigby, the County Analysts for the City of Birmingham. Among the specially enticing Kunzle chocolates which are available in many artistically attractive forms special reference should be made to "Art Dessert" and "Frutamyn" chocolates.

Messrs. Barker and Dobson, Ltd., of Liverpool, are manufacturers of a fine series of high-class, pure, reliable chocolates, toffees, confections, and wholesome sweetmeats.<sup>3</sup> Among these attention should be directed to the "Handy Bottle" Barley Sugar Drops, a particularly acceptable and serviceable preparation for children. The "Supreme Dessert" is a delicious form of eating chocolate. Dr. Jevon's Bronchial Lozenges supplied in small tins are helpful medicated sweets made from an old formula, and have long been in favour as a sedative and demulcent in the treatment of catarrhal states of the throat and bronchi.

Messrs. Callard and Bowser, universally famous as butter-scotch makers, now supply their popular butter-scotch in hygienic air-tight tins, and in similar receptacles other of their noted products are available.<sup>4</sup> Butter-scotch is a sweetmeat peculiarly suitable for tuberculous subjects. Barley-sugar in the old-fashioned and long-favoured stick form can also be obtained in cubes. It is a valuable nutrient for both the sick and the sound, and is particularly appreciated by children. We would also commend the Callard and Bowser Nougat, Crème-de-menthe, Turkish Delight, Butter-drops, Bull's-eyes, and Mint Humbugs, all of which are delicious confections which are sure of a welcome wherever they are introduced.

The House of Cliftons has long been noted for its high-grade chocolates.<sup>5</sup> These are distinguished for their purity, excellence, deliciousness, and artistic attractiveness. Prominent amongst the most popular varieties is the Bitter Chocolate. All the Clifton specialities are made from carefully selected materials of the best quality, and no inferior elements or substitutes are used in the preparation of these justly popular chocolates.

<sup>1</sup> Particulars regarding the Mackintosh specialities can be obtained from John Mackintosh and Sons, Ltd., Toffee Town, Halifax.

<sup>2</sup> Particulars regarding the Kunzle Chocolates can be obtained on application to C. Kunzle, Ltd., Five Ways, Birmingham.

<sup>3</sup> Particulars regarding the above-mentioned specialities can be obtained on application to Barker and Dobson, Ltd., Everton, Liverpool.

<sup>4</sup> Full particulars of the Callard and Bowser specialities can be obtained on application at the works, Duke's Road, W.C. 1.

<sup>5</sup> Particulars regarding the Clifton products can be obtained on application to Cliftons Chocolates, Ltd., Cliftona Works, Manchester.

## THE OUTLOOK.

### THE NATION'S HEALTH.

THE recently issued Annual Report of the Ministry of Health furnishes an authoritative and enlightening survey of the progress of the organization and administration of Health Matters in England and Wales.<sup>1</sup> The subject-matter is arranged under six headings—Public Health, Housing and Town Planning, Local Government and Local Finance, Administration of the Poor Law, National Health Insurance and Contributory Pensions, and the Welsh Board of Health. Tuberculosis receives due consideration. On December 31, 1932, there were in all 21,275 beds available for the treatment of tuberculosis in institutions belonging to local authorities in England. In addition 8,151 beds were available in approved institutions belonging to voluntary bodies. The tuberculosis dispensaries numbered 462. Reference is made to schemes for the rehousing of tuberculous patients and their families who have been living in unhygienic homes; and powers to prevent the employment of tuberculous persons in the milk trade. It is also stated that the Ministry of Agriculture and Fisheries has been in communication with M. Spahlinger concerning arrangements for an experimental trial of the bovine vaccine on animals. A tabular statement appears indicating the work carried out by the Dispensary Service during the last five years. The attendances at dispensaries in 1932 numbered 782,602. The Report also indicates that in many areas children are diagnosed as tuberculous on insufficient evidence and given prolonged periods of sanatorium treatment. The section dealing with tuberculosis closes with the following statement: "The diminution in the number of deaths from pulmonary tuberculosis in 1932 is especially noteworthy, while the steady decline in the number of deaths from non-pulmonary tuberculosis continues. The figures for 1932 represent a death-rate per million population from pulmonary tuberculosis and from non-pulmonary tuberculosis of 687 and 150 respectively, being the lowest death-rates ever recorded for these diseases in this country." The Appendix presents an informing table of statistics showing on a comparative basis the work of the Tuberculosis Service according to class of area in England during 1932.

### TUBERCULOSIS AND PROBLEMS OF PUBLIC HEALTH.

Sir George Newman's Annual Reports as Chief Medical Officer of the Ministry of Health are always documents informing and stimulating. The volume just issued is of exceptional interest, and deals with matters of present-day importance.<sup>2</sup> It is a record of much notable

<sup>1</sup> "Fourteenth Annual Report of the Ministry of Health, 1932-1933." Pp. xii + 329. London: H.M. Stationery Office, 1933. Price 5s.

<sup>2</sup> "On the State of the Public Health." The Annual Report of the Chief Medical Officer of Health for the year 1932. Pp. 265. London: H.M. Stationery Office, 1933. Price 4s.

service and presents facts, figures, and suggestions which every medical officer engaged in duties relating to public health should study. Indeed, the annual survey of current affairs dealing with personal and public health might well be considered by all thoughtful and forward-looking citizens. The report is divided into twelve sections: The State of the Public Health in England, Unemployment and National Health, General Epidemiology, Maternity and Child Welfare, The Insurance Medical Service, Tuberculosis and Venereal Diseases, The Relation of Food to Health and Disease, Survey of the Public Health Services, Cancer, Work of the Ministry's Pathological Laboratory, Medical Intelligence, Environmental Hygiene and International Health and Conclusions. Sir George Newman closes his introduction with a definite statement that "the factors in the health defences of the State appear to be effective," and adds: "With all their imperfections and incompleteness, they have been vindicated by recent experience, something of a bulwark and a security in time of special difficulty and danger. In a word, the State and the municipality have come to the aid of the individual and the people—in health, in sickness, and in the risks of physical improvement." We would particularly commend the attention of readers of the JOURNAL and all who are in any way interested in tuberculosis to Sir George Newman's records and remarks relating to this scourge and the ways in which it has to be met. It is pointed out that the physician of today is much more fully equipped for the early diagnosis of tuberculosis than his predecessors: "Laennec gave him the first instrument of precision for this purpose in the stethoscope; Koch taught him to examine the sputum for tubercle bacilli and provided him with the tuberculin test; more recently still X-rays have proved invaluable in diagnosis." And then comes the timely and very necessary warning: "There is, of course, a danger in this very wealth of ancillary aids. The young practitioner fresh from the medical school may pin his faith too closely to laboratory tests and to radiograms, and attempt to detect early tuberculosis by rule of thumb methods. There is an art as well as a science of medicine. The scientific art of clinical study must go hand in hand with laboratory methods in the diagnosis of pulmonary tuberculosis." Many will approve the much-needed advice which Sir George Newman gives to certain tuberculosis officers who rest satisfied in furnishing only the briefest reports upon patients referred to them by practitioners. "The general practitioner appeals to the tuberculosis officer in cases of difficulty, and it is natural on the part of the practitioner to expect that the reports received from the tuberculosis officer will approximate in clinical detail and guidance to those received from other consultants to whom on occasion he has to refer cases of difficulty. Time spent in furnishing practitioners with adequate and helpful diagnostic reports upon patients sent to the dispensaries and upon the physical condition of patients returning home from residential institutions is time well spent." It is lamentable to read that there is in some districts an absence of an active relationship between the practitioner and the tuberculosis officer. Tuberculosis still exacts a heavy toll. The number of deaths certified in 1932 to be due to tuberculosis in all forms in England and Wales was 33,658 as compared with 35,818 in 1931. The death-rates for 1932 are the lowest ever recorded in this country. As regards non-pulmonary tuberculosis the death-rate has fallen by

37 per cent. in the last ten years. The number of new cases of tuberculosis added to the notification registers during the year was 69,792, and is the lowest on record. In the case of pulmonary tuberculosis the ratio of new cases to deaths has not materially changed during the past ten years. There is a valuable section on the progress of tuberculosis schemes. Reference is made to the recommendations of the committee on local expenditure, who expressed the opinion that "in some areas treatment in sanatoria is indiscriminately given to certain classes of tuberculous person without sufficient care to ensure that this expensive treatment is used only for persons for whom there is a reasonable prospect of providing a cure." The Appendix contains a series of valuable statistical tables relating to tuberculosis.

#### NOTES AND RECORDS.

The Royal Institute of British Architects have issued a Report in handsome form on the Orientation of Buildings.<sup>1</sup> This will be of interest to many readers of this JOURNAL and to architects responsible for the erection of hospitals, sanatoria, and other buildings in which site, orientation, and other features bearing on health conditions are of paramount importance. The Joint Committee who prepared the Report included Sir Leonard Hill and Mr. G. E. Kendall, Chief Architect of the Board of Education. Sir Henry Gauvain has provided a suggestive Foreword in which he endorses the commendation of Sir Raymond Unwin. We would join with him in congratulating the Committee on the introduction of several new scientific instruments, particularly the Heliodon, for the regulation of facts relating to insolation, and the Waldram Sunshine Gauge. Sir Henry refers to the investigation of the advantages in insolation secured by the latest designs of hospital wards expressed in plans contoured in hours of sunshine. We earnestly commend this most admirable Report and the instructive appendices which accompany it to the study of all medical officers of health, tuberculosis and school medical officers and all, both medical and lay, interested in scientific town planning, and may we add patients who have to win back health within the walls of institutional buildings.

The National Association for the Prevention of Tuberculosis has rendered a notable service through the compilation of its Handbook of Tuberculosis Schemes.<sup>2</sup> This valuable guide is now in its seventh edition, and should be in the hands of all interested in any way in tuberculosis work. The aim of the Handbook has been to provide an authoritative and reliable directory of the various administrative areas in so far as the incidence of tuberculosis and the provision for control and treatment of tuberculosis are concerned. The new edition has undergone thorough revision, and will prove of the greatest service to all who are concerned in the proper development and effective administration of sound anti-tuberculosis measures throughout the country.

The National Association for the Prevention of Tuberculosis has

<sup>1</sup> "The Orientation of Buildings: Being the Report with Appendices of the R.I.B.A. Joint Committee on the Orientation of Buildings." Pp. viii+70, with illustrations and tables. 1933. Price 5s.

<sup>2</sup> "Handbook of Tuberculosis Schemes for Great Britain and Ireland." Seventh edition. Pp. vi+162. London: National Association for the Prevention of Tuberculosis, Tavistock House North, Tavistock Square, W.C. 1. 1933. Price 5s. post free.

issued its 1932 Report of the Council in attractive booklet form, with particulars, illustrations, and charts, and a charming portrait frontispiece of its President, H.R.H. the Prince of Wales.

Dr. Gretta M. Thomas has prepared a valuable Report on Cancer of the Skin based on an enquiry undertaken at the instance of the Yorkshire Council of the British Empire Cancer Campaign, under the direction of the Faculty of the General Infirmary at Leeds.<sup>1</sup> The Report is No. 70 of the Ministry of Health Series on "Public Health and Medical Subjects."

Tuberculosis officers and others interested in the administration of Sanocrysin should make a point of seeing a new work by Dr. Knud Secher on the use of this drug in rheumatic affections.<sup>2</sup> Records are given of a number of cases and a serviceable bibliography is provided.

From H.M. Stationery Office there has been issued an elaborate report on deaf persons in England and Wales prepared by the late Dr. A. Eichholz.<sup>3</sup> This authoritative study regarding the problem of the deaf, their education, employment, and general well needs the serious study of all who have to advise and desire to assist in regard to measures for the betterment of deaf children and adults.

Dr. J. Greenwood Wilson has prepared a most instructive and timely booklet on Diphtheria Immunization which we commend to the notice of all medical advisers.<sup>4</sup> It is a valuable contribution to popular education, and should hasten the extension of immunization against diphtheria.

Professor Ernst Kromayer died in Berlin on May 8, aged seventy. The July number of *The Quartz Lamp*, issued quarterly for the British Hanovia Quartz Lamp Co., Ltd., Slough, Bucks, forms a "Kromayer Memorial Number," and contains an English translation of Professor Kromayer's last paper on "The Therapeutic Indications for the Kromayer Lamp," together with a photograph of the distinguished pioneer in practical actinotherapy.

In the April issue of this JOURNAL Colonel Raymond Fennell described in an article on "Open-Air Schools for Town Children" the interesting scheme for sending classes of elementary school children from Oxford to his beautiful Wytham Estate. The adventure, now in its third year, has proved a great success. Fourteen elementary schools in Oxford have sent classes during the past summer. Under the title of "Lessons on a Hill," a descriptive article, with illustrations, relating to this educational enterprise appeared in *The Times* for Wednesday, August 2, 1933.

*Tuberculosis Abstracts* for August, issued by the American National Tuberculosis Association, presents a valuable excerpt of Dr. Edgar

<sup>1</sup> "A Report on Cancer of the Skin." By Gretta M. Thomas, M.D. Pp. 130. London: Ministry of Health. 1933. Price 2s.

<sup>2</sup> "Traitement des Maladies Rhumatismales par la Sanocrysine." By Knud Secher, Médecin-Chef à l'Hôpital de Bispebjerg, Copenhagen. Pp. 74, with illustrations. Copenhagen: Levin and Munksgaard, 6, Nørregade; and Paris: J. B. Baillière et Fils, 19, Rue Hautefeuille. 1933.

<sup>3</sup> "A Study of the Deaf in England and Wales, 1930 to 1932." A Report by Dr. A. Eichholz, C.B.E., to the Minister of Health and the President of the Board of Education. Pp. iv + 206. London: H.M. Stationery Office. 1932. Price 3s.

<sup>4</sup> "Diphtheria Immunization: Propaganda and Counter Propaganda." By J. Greenwood Wilson, M.D., M.R.C.P., D.P.H. With Preface by J. Graham Forbes, M.D., F.R.C.P., D.P.H. Pp. 117. Dewsbury: Joseph Ward and Co., Church Street. 1933. Price 2s. 6d.

Mayer's communication on "Progress in Tuberculosis Control." The September issue seeks to answer "What is New in Tuberculosis Pathology," and the October number deals with "Silicosis and Tuberculosis."

The editor of *Papworth Annual*, the Christmas magazine printed and published by the patients of Papworth Tuberculosis Settlement, invite patients resident in sanatoria and orthopaedic hospitals to enter a competition for an original fairy story. Mr. Warwick Deeping, the novelist and author of "Smith," will act as judge.

The Homeland Association has issued the first volume of what promises to be a particularly delightful series of guides to "This Homeland of Ours."<sup>1</sup> It deals specially with the southern districts of England, and furnishes a charming collection of health and holiday resorts with informing and appealing descriptive sketches. The general editor is A. Spenser Allberry, late editor of the *Bystander*.

"The Twentieth Century Health and Pleasure Resorts of Europe" is now in its 33rd, 1933, edition, and is issued from the Anglo-Continental and International Offices, 3, Boulevard de Grancy, Lausanne, Switzerland (London offices: Kennan's House, Crown Court, Cheapside, E.C. 2). This handsome, illustrated album is a valuable reference book for health and holiday travellers seeking guidance in regard to Continental Resorts, Hotels and Pensions, Schools, and Sports Centres. There are special sections on Medical Establishments, Educational Centres, and Travel by Sea.

The Metropolitan Life Insurance Company, New York, have issued a series of booklets under the general designation "Health Heroes," and including illustrated accounts of the life and work of Koch, Trudeau, Florence Nightingale, and other pioneers.

The British Commercial Gas Association, 28, Grosvenor Gardens, has issued illustrated brochures dealing with Heating Modern Schools, which we commend to the attention of all interested in the warming of centres for school children.

From the United Dairies' Laboratory Department, 31, St. Petersburg Place, W. 2, there has been issued a 32-page pamphlet, "The Nation's Milk Supply: Its Hygienic Production and Control," by Ben Davies, Director of the Laboratories. Professor W. W. Jameson provides the Foreword. This publication (price 1s.) merits the consideration of all interested in the question of a pure and effective milk supply.

The National Association for the Establishment and Maintenance of Sanatoria for Workers suffering from Tuberculosis has issued a Report regarding the work of its Sanatorium at Benenden, Kent.

The Annual Report of the Victoria British Sanatorium, Davos, Switzerland, gives interesting statistical and other data regarding the 79 patients under treatment in the year ending May 1, 1933.

The King George Thanksgiving (Anti-Tuberculosis Fund) Indian Red Cross Society, the headquarters of which are at New Delhi in the

<sup>1</sup> "This Homeland of Ours: Southern England." By E. Maslin Kearsey. With an Introduction to Cornwall and the Cornish by Sir Arthur Quiller-Couch. Professor of English Literature at Cambridge University. Pp. 186, with 4 large road and rail maps of southern England, and 134 illustrations. London: The Homeland Association for the Encouragement of Touring in Great Britain (The Homeland Association, Ltd.), 37 and 38, Maiden Lane, Covent Garden; and Information Bureau at Wellington House, Strand, W.C. 2. 1933. Price 2s. 6d.

winter and at Simla in the summer, have issued an informing report which gives interesting particulars of tuberculosis work in India. The organizing secretary is Dr. A. R. Melita.

We have received from Dr. B. D. Sindwani an interesting report regarding his Sanatorium for Tuberculosis and Allied Diseases. It is situated at Jhangi, in the hill station of Abbottabad, Peshawar, India.

*The Medical Press and Circular* for July 12 was a "Special Tuberculosis Number."

*The Bulletin of the League of Red Cross Societies* for August contains a survey by Dr. Dzierzkowski of the anti-tuberculosis activities carried on by national Red Cross Societies.

The 48th Annual Medical Report of the Trudeau Sanatorium, together with the 16th Collection of Studies from the Edward L. Trudeau Foundation for Research and Teaching in Tuberculosis, contains valuable material, including immunological studies, biological researches regarding the tubercle bacillus, and a paper on tuberculosis among medical students. We have also received a copy of the Report of the Director of the Saranac Laboratory for the Study of Tuberculosis, containing reprints of a number of important papers.

The Report of the Pathological Laboratories of the City of London Hospital for Diseases of the Heart and Lungs, Victoria Park, E. 2, issued under the names of Dr. S. Roodhouse Gloyne, the pathologist Drs. D. S. Page and R. Pearce, assistant pathologists, and Mr. A. W. Smart, chief laboratory assistant, contains statistical returns regarding the pathological investigations carried out in 1392, together with reprints of the following papers: "The Asbestosis Body" and "The Presence of the Tubercle Bacillus in Milk," by Dr. S. Roodhouse Gloyne, and "The Detection of Tubercle Bacilli in the Blood," by Dr. Richard Pearce.

The Human Heredity Committee of the International Federation of Eugenic Organizations, the Hon. Secretary of which is Mrs. C. B. S. Hodson, 443, Fulham Road, S.W. 10, have favoured us with a copy of "How to Prepare a Family Pedigree" published by the Eugenics Society, 20, Grosvenor Gardens, S.W. 1 (price 6d.). This has been prepared for medical advisers and geneticists who are collecting human pedigrees, and contains materials and instructions which will be of service. It seems that in recent medical literature a variety of symbols are in use, and that it is desirable that a simple system of recording data should be adopted. Tuberculosis officers and others interested in investigations relating to heredity and tuberculosis would do well to consult Professor R. Ruggles Gates, F.R.S., King's College, Strand, W.C. 2.

The Canadian Tuberculosis Association, the headquarters of which is at Plaza Building, Ottawa, publishes periodically a "Fiscal Review" giving particulars regarding approach in anti-tuberculosis work in Canada. We have recently received an informing leaflet, "Canada's Experience in Tuberculosis Programmes."

"Saranac Lake in the Adirondacks" is a charmingly produced illustrated brochure issued by the Board of Trustees, giving particulars regarding the development of this famous pioneer American tuberculosis centre so closely associated with the name of the late Dr. Edward Livingston Trudeau. Full particulars may be obtained on application to the Bureau of Information, 64, Main Street, Saranac Lake, N.Y.

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